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VOL. V, NO. 2.

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PAPERS AND PROCEEDINGS

OF THE

SIXTEENTH ANNUAL MEETING

PART II

NEW ORLEANS, LA.

DECEMBER 29-31, 1903

MAY, 1904

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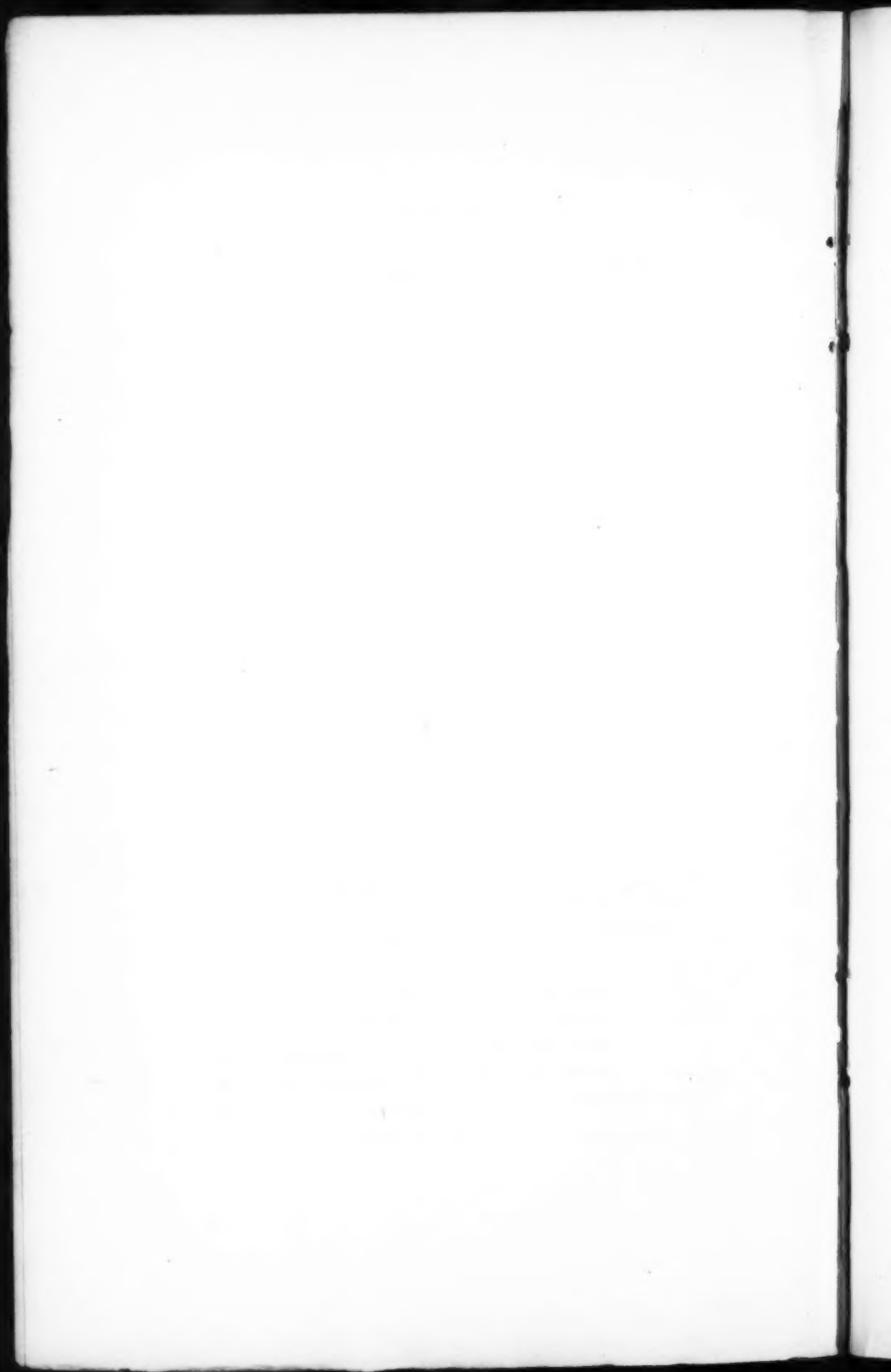
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THE MANAGEMENT OF THE SURPLUS RESERVE

EDWARD S. MEADE

The surplus reserve of a corporation is the amount by which assets exceed liabilities. It consists of the accumulation of the amounts remaining out of income after fixed charges and dividends have been paid. The surplus is represented as a debit on the profit and loss account, and as a liability on the balance sheet. The purpose of its accumulation is either to guarantee the payment of interest and dividends, or because stockholders believe that the money which might otherwise be distributed among them will yield a larger return if left in the business of their company than in any other form of investment which is open to them. The profits of any business, unless it be the receipts of some public service corporations, are subject to wide fluctuations. The requirements for interest are constant, and the rate of dividend, if a corporation desires an investment position for its stocks, should never move except to increase. Out of this situation, arises the necessity of establishing the lowest point on the curve of profits as the maximum of distribution, and of employing the surplus over this amount, low in some years and high in others, in such a way as to add to the income.

The proportion of annual profits which should be reserved for the surplus by any given concern depends upon the regularity of the demand for the product. A railroad, for example, can pay out a higher percentage of the profits of prosperous years than can a steel manufacturing or a shipping concern. In other words, the liability item on the balance sheet of a steel manu-

facturing corporation which is called surplus, should bear a larger proportion to the sum of the liabilities than in the accounts of a railroad. It will finally be conceded that a company which is organized on a speculative basis and whose stock contains an excessive amount of water, should reserve a larger proportion of earnings than a company which is firmly established in the confidence of investors.

These principles of financial management are thoroughly understood and generally accepted by those who administer the finances of business concerns. Even when the necessity of making a market for speculative stocks compels the payment of the entire amount of profits to stockholders, the policy is sincerely regretted by those who adopt it and who usually sell their own holdings at an early date, thus manifesting, in a practical manner, their disapproval. There are, however, certain variations and applications of these principles which will repay investigation. We may consider the following problems which concern the management of the surplus reserve. First, the various forms in which the reserve may be invested; second, the apportionment of capital expenditures between earnings and the proceeds of capital sales; third, the relation of maintenance expenses to the surplus; and fourth, the methods by which the surplus is distributed to stockholders.

The ordinary form of the reserve is an investment in plant and equipment. It is rightly believed that money turned back into a going concern, especially when the demand for its products is increasing, will bring a larger return than when held in securities. It may be questioned, however, whether a portion of these reserves could not be invested to greater permanent advantage in securities which bear no reference to the business in

which the concern is engaged. In other words, may there not be an advantage to those enterprises whose earnings are most subject to fluctuations in building up out of earnings, reserves of good securities, from which they may draw at all times a steady income which no reverses of business can disturb, and which will enable their managers to operate at cost or below cost, if such a policy is necessary to maintain their market position and to keep their plants in operation? For many years the directors of the Pennsylvania Coal Company pursued this policy and placed all of their earnings above a moderate dividend in outside investments with the result that they were eventually able to pay their dividends without reference to their coal business. The great shipping companies of England and Germany follow a similar course, and place a large portion of their surplus earnings in outside securities. It is claimed that the Cunard Company, for example, might lose all its ships and still have 37 per cent of their book value remaining. A reserve of securities may also be drawn upon during a period of depression to maintain the dividend rate. This practice is general among shipping companies. If the surplus reserve is to be regarded as a fund laid aside for a rainy day, this practice may be approved. If, however, the surplus is looked upon as an integral part of the business equipment, and this seems to be a more accurate conception of its place in the corporate economy, than the payment of dividends out of surplus is to be condemned. The only surplus which is available for dividends is a surplus of earnings. In other words, a dividend should never be paid unless it has been earned in the year in which it is declared.

Aside from the stability which outside investment tends to introduce into the profits of a business, it is an

aid to credit. The time comes to every concern when the banks must be appealed to for funds, either to anticipate the sale of securities, or to advance the proceeds of bills receivable which a financial stringency has made it inadvisable to press for payment. This money can usually be borrowed on the credit of a going concern without special security. The obligation created is termed a floating or unsecured debt, as distinguished from a debt secured by lien on specific pieces of property. Other corporations, for example the Consolidated Lake Superior, in 1902, or the Philadelphia and Reading in 1892, unable to obtain money in return for their unsecured promises to pay, were forced to deposit a "sufficient" amount of collateral with the lender to secure the loan. The margin of security demanded is sometimes exorbitantly large. For example, the Philadelphia and Reading to secure a loan of \$2,000,000 was forced to deposit \$12,000,000 of collateral, most of which was worth its face value. The Consolidated Lake Superior Company more recently pledged all of its assets, representing the expenditure of approximately \$28,000,000 to secure a loan of \$5,050,000, and these were bought in by the lending syndicate for \$4,500,000. In either case, whether collateral is deposited, or whether the credit of the corporation is utilized, the existence of an unfunded debt which will mature within a few months, is a menace to the solvency of the borrowing corporation. Under some conditions of the money market, as witness the bankruptcy of Reading, Erie, Atchison, and Norfolk and Western, it is impossible to secure an extension of these loans, and the corporation is forced into a receivership or is shorn of its assets by the sale of securities which represent them. The creation of floating debt, an almost universal feature of corporation finance, has

been frequently followed by these disastrous consequences.

If temporary loans could be made, on specific security, which did not represent assets indispensable to the borrower, a large use of credit would be much less dangerous than it is at present. In view of this fact would it not be wise for corporations to invest a portion of their annual profits in good securities? From these they might at all times derive at least four per cent and could also use them to raise money, when need arises, either by selling these holdings or by depositing them as collateral for loans. The collateral could be sold, if the borrowing corporation was unable to meet its obligations, without impairing the efficiency of the business. This plan has not yet in any large measure been adopted. It is true that American railway corporations are turning into finance companies. The Pennsylvania Railroad, for example, holds securities which stand on its balance sheet at a valuation of \$225,000,000, and the New York Central and Union Pacific also own vast amounts of securities. None of these treasury assets, however, can safely be used as collateral for loans. They could not be sold without impairing the integrity of the system. They are not, in other words, "free assets." They were not purchased for investment but for influence and control.

This question of investing surplus in "free assets" is hardly as important for the railroads as for the industries. Some of these companies have accumulated large floating debts without special security and which if not carefully managed may result in receiverships. Would it not be wise, therefore, to repeat, that companies the nature of whose business forces them to frequently apply to the banks, should accumulate a fund

of quick assets which may either render borrowing unnecessary, or if it is resorted to, may protect the borrowing corporation from serious embarrassment in case its loans are called at a time when funds are low.

The principles governing the amount of cash working capital which a concern should carry, and which is usually, after the initial subscription, provided out of earnings, are generally understood. The amount varies with the volume of the business, the conditions of raw material supply, the regularity of the demand for the product, and the customs which regulate payment. A railroad needs but a small working capital. A steel manufacturing corporation requires that a large amount of cash assets shall constantly be available.

We are particularly concerned in this discussion with the disposition of the cash balance. The cash capital of a large corporation is not at all times fully employed in the business. In order to make these cash balances productive, they are either invested in call loans or in bank deposits on which a small rate of interest is paid. In recent years a custom has grown up that bank officers should become directors in large corporations, with a view to mutual advantage. In return for preference loans when occasion requires, in anticipation of bond sales, for example, the corporation deposits its surplus cash in the banks with which it is thus informally connected, receiving a low rate of interest. There are a number of banks and trust companies in Philadelphia which are known as Pennsylvania Railroad institutions, since their officers are directors of that corporation. These arrangements are mutually profitable, and are increasingly common.

It may, however, be suggested that the arrangement would be more profitable to the corporation directors, if

they were stockholders in the banks which make such large profits by lending out their deposits. Certainly dividends of 10 to 30 per cent, which are often earned by the large institutions, would be an acceptable addition to the small interest which large corporations receive on their cash deposited. We may go even further. Since it is admitted that a corporation should carry on its balance sheet a considerable amount of "free" assets, the most profitable investment for these funds, profitable not merely from the direct return, in dividends, but from the more direct control over large cash resources which this ownership gives, would be large holdings of bank and trust company stock.

It may be objected that the deposits of the community should not be jeopardized by such intimate connection with the interests of large corporations, but to this the answer is that the connection now exists, that the depositor has not frequently suffered, and that if corporations were recognized as the principal owners of banks, not merely would the force of public opinion be brought more directly to bear in forcing them to exercise due caution in their management, but the depositors would be fully informed as to the control of their deposits.

We have in the second place to consider the division of betterment expenses between profits and the proceeds of capital sales. Mr. Stephen Little, to the value of whose labors in creating a body of scientific knowledge in the field of accountancy no tribute can be too high, is to be credited with the first authoritative statement of the principle which applies in such cases, although the practice of many corporations had been conformed to the rule of policy which he laid down. In 1896, in a report of the financial condition of the Baltimore and Ohio Railroad Company, Mr. Little² claims that no ex-

penditures should be charged to capital account, which did not result in an immediate or, at any rate, an early increase of income. By this he did not, of course, mean that railway earnings, no matter how prudent the policy of management, would not suffer periodical declines, but that in each particular case where money was to be spent for improvement, the character of the improvement should determine the source from which the funds should be provided. This portion of Mr. Little's report was not well received. The policy which he advocated was held to be impracticable and even absurd. A leading financial journal went so far as to say that an attempt to put this policy into operation would compel all improvements to be made out of earnings, since the profitability of no expenditure could be assured in advance. Mr. Little lived long enough, however, to see his principle accepted as the settled practice, if not the avowed policy of American railroads.

Poor's Manual supplies us with a striking illustration of the method of its application: From 1898 to 1902, railway mileage in the United States, including second track in the estimate increased 29,000 miles, equipment increased 4880 locomotives and 219,142 cars, and terminals, yards and the other portions of the railway plant increased in proportion. The cost of road and equipment representing approximately the improvement charges to capital account, increased \$609,407,791, and the total surplus during these five years was \$375,678,615. If the amounts reserved out of earnings for so-called extraordinary expenditures be added to this accumulated surplus, for this purpose since 1898, the total amount expended on the railway plant out of railway earnings, we are safe in saying, largely exceeds the amount raised for this purpose by the sale of stock and

bonds. The cost of that portion of the increase of railway assets whose return may be considered in a sense problematical and uncertain, was equally divided between earnings and the proceeds from the sale of new capital.

In apportioning these expenditures, there has been a rough approximation to the principle laid down by Mr. Little. The proceeds of stock and bond sales have been generally invested in equipment, second track, extensions or enlargement of terminals, forms of investment, in other words, which are likely to be immediately profitable, and on the other hand, the reservations from income have been put into forms in many cases indirectly and remotely productive.

A good illustration of this classification of expenditure is furnished by the extraordinary expenditures of the Pennsylvania for 1902. These included, among other items, the elevation of the tracks through Newark and New Brunswick and the revision of the line through Trenton to eliminate the grade crossings in these cities. The change of line at Trenton involved the construction of a stone bridge over the Delaware, and a change of tracks on the opposite of the river to correspond. We find also among these extraordinary expenditures such items as the substitution of stone for iron bridges, and the improvement of passenger stations. The return on these investments, as above remarked, is not immediate. Some years may elapse before a profit is earned. It is proper, therefore, that the earnings of the road should provide the money. On the other hand, the building of the new freight line around Pittsburg, the four tracking of portions of the line, the construction of classification yards and the reduction of grades and curves will immediately increase the earnings of the Pennsylvania, and are, therefore, proper objects for the increase of

capital. These so-called extraordinary expenditures do not, as a rule, figure in the balance sheet. The value of the assets which they represent is yet uncertain, and conservative management will not add the amount of these expenditures to the surplus, although if they justify themselves, the stockholders will eventually reap the benefit, either in an increase of dividend rate or in distribution of assets.

I am aware that this dividing line between the investment of earnings and the investment of the proceeds of bond sales is not rigidly adhered to, nor would I deny that earnings may not, on occasions, be invested in forms which will yield a large return, or that all investments of earnings, if wisely made, will not be ultimately profitable. Generally speaking, however, in spite of the conspicuous instances to the contrary which are furnished by the betterment policy of the Lehigh Valley and the Southern Pacific, Mr. Little's principle has been accepted and systematically applied by American railroads in the management of their capital account. Stockholders of prosperous and established companies have a right to demand that when a large margin over fixed charges or dividends is immediately assured on the investment of capital, the amount necessary should be raised by the sale of securities, and not taken out of earnings. They are equally concerned to protest against a policy which goes to an extreme in this direction, and distributes nearly all the earnings, while raising money by the sale of bonds for construction whose profitability, while assured, is not likely to be immediately conspicuous.

The betterment policy of the Lehigh Valley is a forcible illustration of the injustice which may be done to stockholders by abnormal reservations from earnings.

This company, since 1899, has earned enough to pay a 4 per cent dividend and to be able to borrow at low rates of interest. Instead of paying a dividend, however, from 1898 to 1902, the directors spent \$12,800,000 upon the property out of the net earnings of the company—\$2,500,000 per year. If one-fifth of this amount had been devoted to interest payment, the amount required for the reconstruction of the property could have been borrowed, and over \$5,000,000 could have been safely paid in dividends. The policy of the Canadian Pacific and of English companies, on the other hand, illustrates the risk of paying for betterments of doubtful profit out of the proceeds of capital sales.

Passing to the third division of the subject, we may raise the question whether abnormal operating expenses should properly be added to the surplus. The majority of railway companies increase their maintenance charges during periods when profits are large to an extraordinary degree. It has been argued, notably by the Interstate Commerce Commission, in a notable opinion on the advance of grain rates to the Atlantic seaboard, that large operating expenses were used to conceal profits, and that in addition to large dividends, certain companies were accumulating a large surplus none the less valuable because its annual increments are apparently swallowed up in the cost of operation.

This opinion, which is widely held, will not stand the test of critical examination. The large maintenance expenditures of the railroads during periods of prosperity are not properly to be included in a discussion of the surplus reserve. It is true that the unequal distribution of maintenance expenses, which rise and fall with railroad earnings, may be considered as a resource upon which, in lean years, the companies may

draw, and thus maintain the dividends. For example, take the item of rails. A steel rail may be expected to give service between fifteen and twenty years before it is finally scrapped. The strict requirement for maintaining the rails is, therefore, that at least one-fifteenth of the track should be relaid each year. If, however, in a year of large earnings one-tenth of the mileage is relaid, less than one-fifteenth can be relaid during the next year without allowing the condition of the property to deteriorate. This rule also applies to the maintenance of equipment and structures. Over a period of years a certain amount must be spent in repairs. These expenses, however, may be concentrated into a portion of the period, and by reducing maintenance charges during lean years an extreme reduction of net earnings may be prevented.

An illustration of the advantages of this method of concentrating operating expenses into the years of large earning for the benefit of dividends during periods of depression is furnished by the experience of the Burlington from 1887 to 1891. Owing to a large construction of new mileage and to a combination of unfavorable circumstances the surplus over fixed charges decreased from \$2,596 per mile in 1883 to \$484 in 1891. As a result the dividend was reduced from 8 to 5 per cent. The dividend, however, must have been entirely suspended had not the company been able to make large reductions in its maintenance charges. The heavy maintenance expenses of the Burlington during the years of large earnings could not properly be considered as additions to the value of the property, because they did no more than enable the company to maintain a moderate dividend during a period of depression. Furthermore, in view of the fact that railway compa-

nies, as a rule, do not maintain depreciation accounts, in spite of the fact that their plant is liable to the same process of decay as the equipment of mining or manufacturing companies, and that their equipment is constantly being thrown out of use by the introduction of improved appliances, it is safe to say that even if these charges to maintenance expense on their face appear to be most excessive, and even if this excess is maintained during periods of depression, it is no more than a fair equivalent for the depreciation charge which should appear on their profit and loss accounts.

We turn, in conclusion, to consider the methods by which the surplus may be distributed to stockholders. There is no intention that the benefit of these reservations from profits for productive expenditure should be permanently withheld from the owners of the corporation. At irregular intervals, when the margin of safety for the dividend requirements is sufficiently great, the surplus is distributed to stockholders. Various methods may be employed to accomplish this result. The rate of dividend may be increased, or the assets of the company may be directly distributed to stockholders, either by means of a stock dividend, or what is known as a privileged subscription. The first method is less employed than the second. It is considered undesirable that the dividends of the corporation should exceed a moderate rate, say 5 or 6 per cent, not only because public hostility is aroused by the appearance of excessive profits, but because the market value of the stock, after a moderate rate of dividend has been reached does not advance proportionately with the increase in the rate of distribution. In other words, one share of stock which pays 12 per cent in dividends will under ordinary conditions sell for a much smaller amount of money than two shares of equal par value on which a 6 per cent dividend is paid.

The method of privileged subscription is therefore the one which is usually adopted. This method is familiar, and consists in offering new issues of stock to holders of record at a price below that which prevails in the market. A stock which may be selling at 150 in the open market may thus be offered to stockholders at 110. The stockholders may profit from this privileged allotment in two ways: either by holding the new shares and receiving the large return on the purchase price which the regular rate of dividend represents, or by selling his allotment in the market. This second transaction can be easily financed. The stockholder may sell short the number of shares which he is to receive and make his final delivery when the stock is issued, or, and this is the method commonly employed, he may sell his right to subscribe to the new stock, which is usually quoted on the exchanges. One advantage of this method is that apparently no distribution has been made. The liabilities of the corporation stand on its books at par, and there is no necessity of entering the result of a privileged subscription on the profit and loss account as discount on securities sold. In fact, the results of the transaction do not appear on the books of the company. The operation, nevertheless, results in a loss to the corporation. This may be understood if we conceive that the new stock which is to be issued is placed in the treasury of the company at a valuation which corresponds to the price which will be paid for it in the open market. If, now, this stock which is worth to the company 140 or 150 is sold to the stockholders at 110, the company has sustained a loss represented by the difference. The privileged subscription is, in fact, a distribution of the undivided equity in the company to its stockholders. This method is probably selected, as above remarked, be-

cause it is the method least understood by the public, and because, on that account it, seldom arouses comment, much less the opposition with which the declaration of a stock dividend would probably be saluted.

In conclusion, it may be of interest to observe that the general practice of offering securities on privileged terms to stockholders makes the return on many high grade stocks over a term of years considerably larger than the product of dividing the rate of dividend by the market price at any given time. These occasional profits, while reasonably assured, are too irregular and fortuitous to have more than a speculative influence upon the price of shares which are thus benefited. They do not, therefore, except for the period immediately preceding the distribution, figure in the investment judgment of the value of the stock. In other words, the investor who buys a 5 per cent stock at 120 has apparently invested his money at a rate of 4.2 per cent. If he holds his stock for ten years, however, it is altogether probable that, as a result of various privileged allotments and subscriptions, his return will be much larger.

For example, take the return on Illinois Central stock from November 1895 to August 1902. During this period the company paid a dividend of 5 per cent up to 1900 and 6 per cent thereafter and the price rose from 95 to 148.75, representing at the first date a return of 5.2 per cent, and in August, 1902, a return of only 4.1 per cent. On an average of the entire period, the yield on Illinois Central stock was not far from 4.1 per cent, a low rate of return. During these five years, however, the owners of Illinois Central participated in five privileged subscriptions, amounting in all to 70 per cent of the recorded holdings. An owner of 100 shares

who participated in the allotment, and who sold his stock immediately on delivery at the ruling market price, made a total profit of \$2509.60, or 25.74 per cent on the market value of 100 shares at the date of the first allotment. Considering all losses and gains from the sale of the privileges, as distributed equally to December of the years 1896 to 1903 inclusive, the annual gain to the holder of 100 shares on the basis of the market price of November, 1895, was 2.69 per cent, making the annual return on the stock if purchased at that date 7.89 per cent. Of course, if the stock had been purchased at the higher prices, the gain would have been less, although still above the rate of dividend on the stock. If the stockholder prefers to hold his stock allotment, he can gradually raise the rate of return on his holdings to the dividend paid on the stock.

It is true that the stockholders of every corporation cannot look for as favorable terms as those granted by the Illinois Central, and in some cases, such for example, as the last issue of Pennsylvania stock, which was offered to shareholders at 120, the stock could have been afterward purchased below the subscription price. Generally speaking, however, stockholders of corporations whose dividends are reasonably well assured, and which sell at high prices in consequence, can materially increase their income by selling their stock allotments.

May we not hope that, when the public learn that the standard railway stocks offer the investor, along with the certainty of a moderate return, a strong probability of extra profits on privileged subscriptions, the demand for speculative stocks sold on representations of abnormal dividends may be greatly weakened, even if it can never be entirely destroyed?

THE MANAGEMENT OF THE SURPLUS RESERVE—DISCUSSION

JOHN H. GRAY: With the major portion of Dr. Meade's paper, I heartily agree. He will permit me, however, to express my regret that the occasion naturally required that the paper should be couched in such general terms as to raise the question of whether some of its statements, which apply without doubt to many parts of the field under discussion, may not need some further illustration when the attempt is made to apply them to other parts of the subject. From the nature of the corporate history of the last few years, I may be permitted to express my personal regret that Dr. Meade was not asked to confine his discussion more particularly to the class of corporations whose securities are so prominent on the stock market, and whose final position in the economic world still remains in such great doubt, namely, the industrials. For, as the members of this Association know, Dr. Meade has recently made marked and distinguished contributions to this subject.

In speaking of the amount of surplus reserve, if I understood Dr. Meade correctly, he said: "That a company which is organized on a speculative basis and whose stock contains an excessive amount of water, should reserve a larger proportion of earnings than a company which is firmly established in the confidence of investors." I think we should all agree that this were a consummation devoutly to be wished, but, at the same time, should probably feel that, in the language of the Greek grammarians, it is a supposition contrary to fact and to possibility. The history of the trust period,

if it has not demonstrated anything else, has demonstrated the fact that corporations cannot be organized with vast quantities of water and on a strictly speculative basis, without promises for the future which make it impossible, at least in the earlier years of their history, to accumulate so large a surplus as is indicated here. True, this inability may mean the early downfall of the corporation. On the other hand, a relatively small surplus, added to for a considerable number of years by a corporation in a growing community, may enable the corporation to live by luck. Again, it may be doubted whether the wholesale failure of corporations for lack of such a surplus will teach the public to stop putting their money in corporations organized in such a way as to make their continued solvency impossible.

In the distinction drawn by Dr. Meade between a surplus reserve invested in assets not connected with the life of the industry, and in assets which make an integral part of the equipment, he appears to me to take a somewhat more conservative view than the circumstances of any mere speculative industry require, when he says, "If, however, the surplus is looked upon as an integral part of the business equipment, and this seems to be a more correct conception of its place in the corporate economy, then the payment of dividends out of the surplus is to be condemned." * * * "In other words a dividend should never be paid unless it has been earned in the year in which it is declared." This appears to me to be one of the most important suggestions in his paper, and perhaps to run counter to the accepted theory of the nature and functions of the business corporation. Apart from the immortality of the corporation as over against the individual, the justification of the corporation has heretofore been con-

sidered to exist in the fact that under the principle of limited liability, people who had no technical knowledge of the industry in question, and who were not situated so that they could take a personal part in the management, might be induced to invest in the securities of corporations, and thus contribute the necessary capital for carrying on modern industry. If that be true, it becomes, in my opinion, fundamentally necessary in the public interest that these people should be able to count upon a steady and reasonably uniform rate of dividend. By definition, such investors are not interested primarily in the industry in question. They are too numerous, by mutual understanding and agreement, to unite and combine together in electing members of Boards of Directors. We are driven, therefore, to assume that they will be fleeced, and in conformity with the public interest may be fleeced, for the promoter and the underwriter who float purely speculative enterprises, or, that they should be compelled to put their earnings into an investment in a manner at variance with the accepted theories of the advantages of the corporate form of industry. This means either that the savings of the small property owner shall be filched from him by the promoter or the underwriter, and he, according to Dr. Meade's well known definition, be not classed as an investor, but that he be compelled to wait for the income from his investment longer than his circumstances justify him in waiting, and in such a manner as to contradict the accepted theory on which men are permitted to turn their property into the corporate form.

It is quite true that during the revulsion following 1893, many railroads, which for the most part have become real investments as distinct from speculative holdings, were bankrupted in the absence of an adequate re-

serve by the severity of the depression. I believe, however, that it is equally true that many railroads kept up their dividends, often at a reduced rate, out of their surplus of previous years, with very great advantages to the corporations themselves, the holders of their shares, to the general public, and especially to the developing of that sentiment in the public mind which is necessary for the economic development of the future.

Another very important part of Dr. Meade's paper is that in which reference is made to what may be called the inter-connection between the banking world and the ordinary business corporation. From the standpoint of the change of sentiment in this country the reference is of pathetic interest. When the bankers of this country began to come into control of railroads and other industrial enterprises, it was often remarked that it meant a change in the conservatism with which the banking business would be carried on, but it was confidently believed that the loss in that particular due to the traditions of bankers, might be more than off-set in the greater conservatism manifested in the management of other business. Alas, the history of the trust period of the last four years goes far to show that the banker has become the chief promotor in the offensive sense of the term, and lending his great reputation and prestige to the wildest of schemes, has been able, as a promotor, to float schemes which the public would have ignored and refused to touch save for the added element of stability, wisdom, and conservatism that the banking fraternity was supposed to give to the enterprises to which it loaned its name.

It is true that on the question of the general desirability of such relation between the bankers and general industry, Dr. Meade is rather non-committal, turning it

off with the phrase that "it already exists"; yet some of his other remarks would lead one to infer that he gives his approval to the idea. For instance, he says subsequently: "These arrangements are mutually profitable and are increasingly common." He often, as it appears to me, introduces a slight confusion which, alas, is too common in corporate management, between the interests of the directors of corporations and the interests of the corporations themselves, when he said, if I understood him correctly, that "the arrangement would be more profitable to the corporation directors if they were stockholders in the banks which make such large profits by loaning out their deposits." The banking reserve of the country under our imperfect banking and currency systems is already in a delicate and serious enough situation, without encouraging the further development of a relation which, so far as our experience goes, appears decidedly injurious.

I wish to say but a word in regard to Dr. Meade's position in regard to the sources from which the funds should come for different kinds of investments. As I understand his position to be, it is that new securities should be issued for capital only in those cases in which dividends are assured at a very early date, and that other additions to the investment should be made out of the profits. At this point, it seems to me a distinction must be made on the lines which I suggested at the very beginning, namely, on the character of the industries carried on. Without time to develop the thought, I will venture to suggest that in the case of public service corporations, and more especially of those with a fixed or traditional charge, such as gas companies and street car companies, which, if organized in any considerable centers of population, are remarkably safe, all capital

for additional investment should be raised by the sale of securities. Experience has shown that in these cases, at least in the larger centers of population, the accumulation of a large surplus in the present state of the law and the public mind, the issuing stock dividends and capitalizing earnings, in connection with the feeling of what is a fair rate of dividend on actual investment leads not only to highly artificial attempts to capitalize the earnings, but has provided one of the most attractive fields for the undesirable and dangerous plunger and speculator who wrecks the corporations. The English method in these cases for the distribution of earnings and acquisition of funds for additional investments out of capital sales, seems to me perfectly desirable. Of course, it is not to be forgotten that in such cases as this, the solvency and life of the corporation, even in times of depression, are virtually assured, provided the company is managed with reasonable honesty and efficiency, because prices are virtually fixed, the same in good times and bad, and the amount of business is relatively speaking, but slightly affected by periods of depression.

If time permitted, I should like to say something in regard to the methods of distributing the surplus money to stock-holders. I think something at least in the public interest could be said against the proposition of Dr. Meade, so far as the kinds of corporations from which he draws his illustrations are concerned. One might infer from Dr. Meade's statement that he doubted the expediency of attempting to limit the earnings of railroad corporations directly or indirectly. A discussion of this point, however, would lead me too far afield.

I hope nothing I have said will lead any one to think for a moment that I do not have the highest apprecia-

tion of the form and substance of Dr. Meade's paper. My desire has been rather, without in any manner detracting or seeming to detract from the value of that paper, to call attention to some phases of the broad subject which seem to me to deserve further investigation before it will be possible to arrive at broad generalizations and definite conclusions.

VICTOR ROSEWATER: I can present only a few ideas that might be suggested by Dr. Meade's excellent paper to any one devoting some thought to it, but who had not been able, as he has, to make a thorough special study of the question.

1. The surplus reserve differs in no way from the fund produced by the sale of the capital stock. In economic concept it is a part of the concern's capital; if the capital were ample for all the purposes of the corporation there would be no occasion for withholding any part of the earnings to constitute a surplus reserve.

2. The surplus reserve, being really undivided profits, belongs to the shareholders. It is deferred dividends. It is merely a matter of book-keeping then whether it is (a) allotted at once and held in trust as the property of the individual owner subject to the corporation's use, or (b) held in lump sum without allotment in severalty, or (c) turned into the capital account against the issue of stock dividends, or (d) merged with the capital and other assets to enhance the value of the outstanding shares without increase in their number. Whatever plan be followed, it is simply by virtue of a speculation on the chances of returns in the future.

3. If there is to be a surplus reserve and it is no different in essence from the capital, why should there be any different management for it, or any different field for

its investment, than for surplus or uninvested capital? If the business of the corporation needs additional capital, the withholding of undivided profits to make up the deficiency may be the best way to raise the money. There is no good reason, however, why, except for temporarily tiding over fluctuating demands upon the resources, the surplus reserve should be invested outside of the business than that the capital should be so invested—the result is for the corporation to take up objects different from those that prompted its incorporation.

Dr. Meade cites an extreme case where the Pennsylvania Coal Company has paid all of its dividends out of New York City real estate investments. It would be difficult to say whether the coal company had not actually become a realty company and if the returns from the real estate investments prove really more profitable than the returns from the coal operations, not only its reserve but its capital should be diverted to the realty business and it should retire from the coal trade so as to earn the highest possible revenues for its shareholders. This recalls very much the New York bank that for many years did business on a charter for a water works plant “and for other purposes,” and kept a tank on the roof of its building to prevent forfeiture of its charter. What need to practice such deception in these days?

4. Dr. Meade lays it down as a fundamental principle of sound financial management that dividends be paid out of earnings only—*i.e.*, as distinguished from dividends paid out of capital to the impairment of the assets. He would even condemn payment of dividends out of surplus after the surplus had become “an integral part of the business equipment.” Whether it is to be regarded as part of the business equipment, however, depends entirely upon the directors or management and

there is nothing to prevent the distribution of the permanent surplus reserve as stock dividends even after it has been so listed for years and became an important element in the stock values. What the surplus reserve does then is to facilitate unearned dividends out of capital whenever stock jobbing interests demand.

5. As a matter of fact the question of dividend distribution has no definite relation to any particular time period. The justification of the reserve, aside from its merger into the capital account, is its desirability as a guaranty of steady dividends against fluctuating business and variable profits and losses. As an insurance fund it is an admission that the undivided profits are only nominally a surplus because the entire time period, which might be six years as well as six months, has not elapsed and a balance struck at this particular time would not be a true balance. What such corporations should do is to ascertain the actual earnings that may be counted upon for a series of years and gauge their dividends accordingly.

6. What Dr. Meade says about the division of betterment expenses between undivided profits and the proceeds of stock sales is interesting but his conclusions as to the dividing line are, and must be, indefinite because they rest on the prospect of immediate increase as income and depend merely upon the time period held in view. An immediate increase of income does not necessarily mean that the increase be measurable before the next dividend day. It would be just as precise to say that betterments that add to the original value of the corporation's property could safely be based on new capital sales without impairing the value of outstanding capital stock, while recoupment of losses and restoration of depreciation should always come out of profits ahead of

dividends. Where betterments are paid for out of earnings it is the same thing as the diversion of dividends to the surplus reserve.

7. The dangers of surplus reserve financiering seem to me to be too lightly passed over in Dr. Meade's optimistic review. The management of the corporation is assumed to be the deliberate and intelligent action of the stockholders when in truth it is only the action of the directors and is frequently inspired by individual, if not selfish, motives. These dangers are roughly two-fold, (a) the use of the surplus reserve for stock market manipulations and (b) the use of the surplus reserve for corporation graft. Dr. Meade gives examples of both which should be further emphasized.

a. As to stock exchange manipulations. The conversion of profits into surplus and surplus into dividends or betterments is easily convertible into stock market movements. The men on the inside too often take advantage of their information not only over the outside public but also over the outside shareholder.

The distribution of the surplus reserve by privileged subscriptions is confessedly a deception to obviate the prejudice against stock dividends "because it is the method least understood." The stockholder who sells short to the best advantage the number of shares he is to receive is sure to be the privileged stockholder who is also in the directory and his selling is likely to bear the market for the other stockholder by the time he is ready to unload.

b. As to corporation graft. It is notorious that the dividends are not the only profits reaped by those on the inside of the corporation management.

The deposit of cash balances making up the surplus reserve at "a small rate of interest" in banks whose

officers are also directors of the corporation, thus drawing an extra profit over the common shareholder is not different, except in degree, from the employment of those same banks to float big blocks of watered stock at exorbitant commissions.

The investment of the surplus reserve in securities of a second corporation, in which the directors or only a part of the shareholders of the first corporation are interested, is equivalent to paying an extra dividend to those who are interested in both. It is hinted that the relations that exist between several large eastern insurance companies and the trust companies through which their securities are bought are of this nature.

If the maintenance account is to be inflated to cover up a growing surplus, such, for example, as by an anticipatory investment in steel rails at top notch prices, the community of interest between the directors of the two corporations (buying and selling) is apt to exert an influence not necessarily for the benefit of the ordinary shareholder.

In a word, the surplus reserve can offer most convenient facilities for discrimination between the privileged and the unprivileged stockholders, the same sort of graft that absorbs profits by princely salaries to high officers and favored relatives, big rents for quarters belonging to some milking company, or fat contracts to an inside construction ring.

8. Strangely enough, then, the consideration of the management of the surplus reserve, to my mind, reverts to the very starting point, namely, the necessity for full publicity for all corporations tinged with a public interest and strict supervision of their financial operations by a competent public authority vested with powers to audit and control similar to those now exercised over our national banks.

HENRY RAND HATFIELD: Five points may be emphasized in discussing Dr. Meade's paper. These are: the purpose of establishing a surplus reserve, its amount, its investment, its treatment in the balance sheet, and its distribution.

The purpose of establishing a surplus reserve, as stated by Dr. Meade, is either to guarantee interest and dividend, or to provide an investment for the stockholders. There are at least two other purposes distinctly recognized in actual business practice. These are (1) to give creditors a general guarantee, in addition to that furnished by the capital stock, and the stockholders liability. This is noticeable in the case of banks, where the establishment of a surplus is customary and, as in the case of our national banks and in the German Reichsbank, sometimes compulsory. (2) To provide ready funds for emergency purposes.

One purpose in creating a surplus, which is mentioned by Dr. Meade, seems incorrect. A surplus reserve is not designed to provide revenue outside of the scope of the business. This does not mean that the surplus may not at times be invested in outside fields, nor that a surplus when invested should not yield a revenue. The object of any corporation is to carry on some definite business. In carrying on that business it may exercise certain implied powers. If a factory can best manufacture, if it can best maintain its integrity, its solvency, its credit, by holding outside property, well and good. But it is out of place for a coal company to derive its main income from New York real estate. The great trusts are not trust companies, and should only hold outside property in so far as their own particular business demands such outside holdings. If the business itself is not profitable, it is better that that

fact should appear, rather than it should be concealed by profits from entirely disconnected sources. If the managers of a corporation cannot make a satisfactory profit in their regular business, there is no presupposition in favor of their being more successful in some outside investment, and the stockholders should not be dragooned into entrusting them with additional funds.

In his discussion of the amount of surplus reserve, Dr. Meade states that it should vary with the constancy of demand for the product. This would be better amended to say that it depends on the constancy of profits; for a lessened demand for the product, if accompanied with a decreased cost of production,—a condition by no means impossible,—would leave profits constant. But a much more serious omission is made by the author, both in his paper and in his work on "Trust finance," in that he neglects to show the bearing which the form of capitalization has on the question of the amount of surplus which should be reserved. The industrial corporations for instance have been severely criticised on the ground that the percentage of surplus to dividends is so much less than the percentage of surplus to dividends is in the case of railroads. This ignores the fact that the railroads have a large bonded debt, while the industrials are almost unbonded. It is apparent that of two corporations, one with \$100,000,000 in bonds and \$100,000,000 in stock, the other with no bonds and \$200,000,000 in stock, the former should reserve a larger proportion of its dividends and should, moreover, maintain a larger surplus in proportion to its total capitalization. For this there are two reasons, (1) the evil of defaulting in interest is so much greater than that of passing a dividend, that the protection should be greater; and (2) the very fact of the fixed interest charges

makes the fluctuation in annual profits more wide. To illustrate this. If the surplus of income over operating expenses varies from \$9,000,000 to \$15,000,000, the profits on the \$200,000,000 stock would vary from $4\frac{1}{2}$ to $7\frac{1}{2}$ per cent; but if half the capitalization consisted of first mortgage 5 per cent bonds, fluctuations in profits would vary from 4 per cent to 10 per cent per annum; in the first case a range of 66 per cent, in the second of 250 per cent. Quite aside, then, from the speculative character of the business undertaking, quite aside also, from the question of the nature of the business, as to its quasi-public character, the form of the capitalization is an important factor in determining the amount of reserve which should be kept back as a guarantee.

Turning to the question of the investment of the reserve, this surely can only be answered when we consider the purpose for which it is established. If it is to afford investment, it should go into the most profitable investment; that is, the business itself. If it is to provide for emergencies, it should be in some liquid form, which can easily be drawn upon. Dr. Meade on this point falls into contradiction. In the first part of his paper, he says that the reserve should ordinarily be invested in plant and equipment. Later, while discussing the question of extensions, he says: "When a large margin over fixed charges or dividends is immediately assured on the investment of capital, the amount should be raised by the sale of securities and not taken out of earnings." But it may be questioned why there should be so much discussion of the investment of the surplus reserve. Why should the surplus have a special corresponding item among the assets? It almost seems at times as though the author were misled by the use of his pet phrase "surplus reserve," and thought because

there is a surplus, there must needs be a specific reserve, such as is meant when we speak of the bank reserve. Is a fund of ready cash, or of easily negotiated securities, desirable in the assets of a corporation? Is it not equally desirable whether the corporation have a surplus or not? Dr. Meade paints a bright picture of the advantages of having available funds and shows how railroads have been wrecked, trusts demolished and stockholders ruined because there was no such reserve. It would therefore seem that at times the most profitable investment of any corporation may consist of that part of its assets held as an emergency fund. But what correspondence is there between this fund and the accumulated surplus? In the case of a bank, there is just as much wisdom and necessity of having some liquid assets when the bank first starts as when it has a surplus many times its capital, and I have never seen any claim that one should depend on the other. Similarly, in the case of any other corporation. If some percentage of a corporation's assets ought to be held in cash, or outside securities, or New York real estate, such investment should be made out of the proceeds of the original sale of bonds and stock just as surely as out of the surplus; if such holdings are not desirable, why should surplus reserve, which economically is indistinguishable from capital stock, be forced into an undesirable channel?

A fourth question is whether the profits reserved from distribution should so show in the balance sheet. It is not clear to me whether Dr. Meade's discussion of the treatment of betterment and of the source of unusual expenditures clearly faces this problem or not. A betterment is either an actual increase of fixed capital, or it is the recognition and restoration of wasted capital. In the former case, the actual surplus reserve is un-

affected, and Dr. Meade's discussion is in reality merely whether the surplus reserve is best invested in the plant. If the so-called betterment is in fact only a restoration of wasted capital, there is no special pertinence in discussing it in connection with the surplus reserve, for expenses must be paid, and the property must be kept up before we can talk of surplus at all. The surplus exists, as Dr. Meade shows, equally whether the betterments are charged to cost of plant (road and equipment) or treated as an expense. Whether that surplus shall be made manifest in the balance sheet is another question, and not logically connected with that of the advisability of selling securities.

I should myself urge greater accuracy in having the actual condition made manifest. The paying or the retention of profits is important, but showing of profits and losses is much more important, both to individuals, and to the public. Non-dividend paying bank stock frequently sells at a high premium, because it shows dividends earned. Expedience, public policy perhaps, frequently justify the hiding of earnings because the temptation is generally toward exaggeration rather than toward depreciation of profits, but the ideal goal of accounting is exact accuracy, and a hidden surplus is in its very term a confession of an inexact balance sheet.

Dr. Meade's final discussion of the distribution of the surplus reserve is contradictory. He speaks of such a distribution as being secured by raising the rate of dividend, or by privileged sale of stock. A raising of the rate of dividend, provided the new rate does not exceed the current annual profits, is, however, not a distribution of the surplus at all, nor is the privileged sale of stock at par a distribution of surplus. In the latter case the corporation increases its assets to the

same amount that its liabilities are increased, and the surplus remains unchanged. It may be a step toward the disbursement of a larger sum in annual dividends, but unless such distribution is more rapid than the making of profits, there is no lessening of the surplus. The surplus still remains on the balance sheet, and in its tangible, material embodiment among the assets. Distribution of profits derived from the investment of the surplus is no more distribution of the surplus than the payment of dividends derived from investment of the original capital is distribution of such capital.

THE THEORY OF LOAN CREDIT IN RELATION TO CORPORATION ECONOMICS

J. PEASE NORTON

Two chapters of societal economics cover the field of the distribution of wealth. The first studies the distribution of wealth *destined* for consumption and the second the distribution of wealth *destined* for production. In the first belong questions of individual welfare, and in this field the active agitations of the parties play. Socialism, for instance, would find its solution of one problem in a more equitable distribution of wealth, holding that Weber's law suggests that on the assumption of equality of enjoyment, equality of properties maximizes this ophelimity. Nor is it an answer to say that enjoyments are unequal; for even then the socialist case may stand.

Without more than suggesting these well worn problems, I call you attention to a parallel field, less clearly studied, but of far greater importance, the economics of the distribution of the control of wealth *destined* for the production of more wealth. I am conscious that in these words there may seem to be no distinction, since if man is wealth, all wealth consumed under the first division is also under the second. If we include men as wealth as Professors Fisher and Pareto do, then we should term wealth destined for consumption as wealth destined for personal production. There is no confusion in thought, although I take this opportunity to prevent confusion in wording. In the history of political economy, there has been such a distinction since the beginning, and this contrast is further heightened by that parallel conception of Professor Clark's, of an unchang-

ing body of capital, undergoing transmutation, but eternally existent. It is the distribution of this capital, viewed from the standpoint of control and not consumption that deserves greater attention than it has yet received.

Too much emphasis has been laid on the marginal utility side of economics, *i. e.*, on the enjoyment of the masses. In the crass struggle for existence, as Professor Sumner has shown, individual against individual, group against group, society against society, each group strengthens itself by co-operation and by systems of rewards within, but the problem is not so much in maximizing enjoyment (for enjoyment is after all secondary, since so much is unconscious and unreasoning) the real problem is to keep up and increase production.

Consequently, an equally important aspect to emphasize is equality of opportunity rather than equality of enjoyment, and the gain to society which comes from every method of distribution of productive wealth which puts control quickly into the hands of the men who can, and which takes it from the hands of the men who cannot.

This is not a defense of Wall Street methods, with a view to palliating obvious excesses, but an attempt to point out the fundamental relations among various economic magnitudes, which in their interaction through the play of human motives, opportunities and capabilities, result in making the devices of credit and the complex methods of Wall Street financing as great an engine of production of more wealth as the arts of the farmer in digging the crops from the ground or new inventions which render the day's work of the laborer or the dollar of the capitalist twice as productive. There are three

distinctive questions in the situation at large. (i) The causes of the trend towards combination. (ii) The nature of instruments of credit. (iii) The lack of knowledge on the part of the public not so much as to what the statistics of earnings and costs are, as to the question what instruments of credit are with respect to security.

The standpoint which is the basis of the rapid advances in the Sumnerian sociology, the philosophy which views the phenomena of society from the standpoint of individuals, groups and societies—all of which is capable of statistical interpretation and measurements—is equally useful in the study of the distribution of productive wealth. The subject is best viewed, not from the standpoint of commodity, its demand and supply with price as a major factor, but from the standpoint of the individual, group, firm, corporation and trust, struggling with competitors, seeking to maximize its profits. The laws of monopoly in general apply, not the laws of competition. The question of prices is of minor importance in this subject. Goods, I care not what, are of two great classes, *competitive* and *non-competitive*. Competitive goods cover the staples capable of being graded. Non-competitive goods cover the great bulk of wealth, which is not capable of being graded with any accuracy. Prices are a matter of policy and not a result of an objective supply and demand. Every individual, firm, corporation or trust sells each article with reference to the maximum sum total of profit on all articles, and not with reference to the maximum profit on any particular article. In other words, each concern seeks to maximize its exploitation of the selling field of its influence.

Even the smallest stores are monopolies resulting from combination of location, non-competitive goods, skill and experience in what might be called the psychology

of customers, and instead of looking for laws of supply and demand for any article, we should look for skill in exploitation of desires created, and above all skill in the creation of desires. Consequently, what competition there is, is between concerns selling goods on monopoly principles along the lines of greater or less skill in creating desires. Prices of competitive articles are then fixed by competition, it is true, but not according to our laws of supply and demand. The price policy of the concern, which is a limited monopoly, determines these prices on the basis of the maximum sum total of profit on all goods, competitive and non-competitive.

Competitive articles exist because buyers can detect small differences. If it is easily possible to detect differences between two articles of the same class of say under 10 per cent of cost value at the same manufactory, the article is competitive. If experts cannot detect differences of 20 per cent of cost from inspection, as I have been told is the case in such a commodity as linen handkerchiefs, the unintelligent consumer cannot detect differences of 60 to 100 per cent. Mr. John Wanamaker stated before the Industrial Commission that his experts could not detect differences of fifty cents in costs of two pairs of shoes without ripping them into pieces. Comparison between prices of different stores or manufactories is, therefore, impossible in the degree to which the goods are non-competitive. The more that they are non-competitive, the more are they sold, not with reference to the prices charged by others, but with reference to what the traffic will bear. It would seem that the principles underlying railroad rates so clearly worked out by President Hadley underlie the price policy of modern business in general.

Price-slashing is done in competitive goods, because

it is only in these goods that consumers can compare prices. It is the essential feature of price policy that consumers shall believe competition is intense, and hence the parade in advertising competitive goods at cost and below cost. Why prosperity instead of ruin ensues for the concern is because the number of competitive articles is small in comparison with the number of non-competitive articles and price-slashing is one effective weapon in creation of the selling field.

There is, at the same time, one aim common to all concerns, to destroy competitive articles. Destruction of competitive goods consists in rendering them by some means non-competitive. One effective means for destroying competitive goods is by use of brands and new names, thereby producing artificial monopolies lasting the force of advertising. The price-per-pound test is destroyed by the use of packages. In food packages, paste-board supplies the concept of bulk. One great corporation has within a few years revolutionized the business in crackers, formerly competitive goods from the standpoint of the manufacturer, producing thereby an artificial monopoly through extensive advertising, brands and trademarks. We should not be confused by the fact that when competitive goods are destroyed for the producer, these goods which were formerly non-competitive for the retailer become thereby bitterly competitive for him. The reason is that consumers through advertising by the producer, come to know prices, and consequently price-slashing by retailers ensue. It is the practice of great department stores to cut to the quick the prices of well advertised cereals, patent medicines or food brands of which the price is widely known, entailing heavy losses, for the sake of the tremendous effect it produces in extending their

selling field through the sympathetic buying of other non-competitive goods because these few competitive goods are lower than elsewhere.

On the other hand, competitive goods for the jobber and wholesaler, like beans, rice, etc., are non-competitive for the retailer, because consumers cannot detect differences of perhaps 50 to 200 per cent on wholesale price. Consequently, the same grades are sold in the same retail stores at different prices, that the exploitation of each customer may be made as complete as possible, the customer paying all that he is willing to towards the maximum sum total of profit; and at different stores these goods are sold at different prices ranging up to often as high as 200 per cent range of the wholesale price. For instance, last winter at different stores, a few blocks apart, in New Haven, and on the same day the standard grade of kerosene oil was sold at prices ranging from eleven cents, one cent below cost, up to twenty cents per gallon.

Destruction of competitive goods is going along upon many lines. The following interesting side development is now under full headway. Well advertised brands, non-competitive for producer, become thereby competitive for the retailer. Although they are necessary articles for the latter to handle, they are unpopular with him because they do not contribute to the profit. To stem this hostile discrimination of the retailer, large owners of brands are becoming the owners of retail stores, thereby increasing the destruction of competitive goods, and increasing the monopoly of the selling field created through advertising. Examples of this movement are to be found with ease in shoes, tobacco goods, groceries and many other lines.

Consequently, I believe, monopoly prices are more

than ever the law of the business world. In fact, there never was a competitive price fixed by theoretical supply and demand curves except in the case of a few staples capable of being graded. Great staples capable of being graded are undoubtedly subject to the competitive prices of the exchanges, provided there are many buyers, and many sellers. But once let the supply become concentrated in the hands of a group, and the market disappears. The produce exchange is rather a relic of the past than a development of the present. Its existence is bound up with the existence of competitive goods, but the goal of business is the destruction of competitive goods. The weapons are fictitious grades, brands, patents, graded prices, the control of supply by any and every means, and the creation of demand by advertising.

A world of commerce is then primarily engaged, not with the satisfaction of desires where many books on economics commence, but with the creation of desires and this involves the whole theory of suggestionism and hypnotism. An authority on economics once remarked that the fundamental axiom of political economy is that man is a rational intelligent animal, but the difficulty is that we have confused the rule with the exception.

Gradually as great concerns have been built up, there has been added, what has been termed by Professor Sumner, the "monopoly of superiority," *i.e.*, a combination of skill, location, brands, patents, methods, etc., which *cannot* be duplicated, and if imitated result in a higher cost of production.

This brings us to *cost of production* which is an essential conception at this point. The sources of this classification are most varied, but I am particularly indebted to the little work by C. J. Watts on "The cost

of production," and the many articles that have been written by various authors upon questions of running expenses and fixed charges in railroads. This chart is simply schematic, but it is one used in many manufacturing plants, and is useful because it makes the abstract reasoning somewhat more concrete.

COST OF PRODUCTION.

Manufacturing Department.

(a) Material.

Total value of piece material.

Manufacturing Supplies, *i.e.*,
belting, emery, cloth,
brooms, fuel, oil, etc.

(b) Labor.

Total value of piece-wages
of "productive labor."

Departmental "non-productive" labor, *i.e.*, foreman,
clerks, truckers, oilers,
roustabouts, etc.

General "non-productive" labor, *i.e.*, shipping clerks,
stock clerks, time-keepers,
engineers, etc.

Buying and Selling Department.

Traveling expenses, salaries,
freights, telephone and telegraph,
express charges and advertising.

Fixed Charges.

Rent, taxes, etc., interest.

Risk.

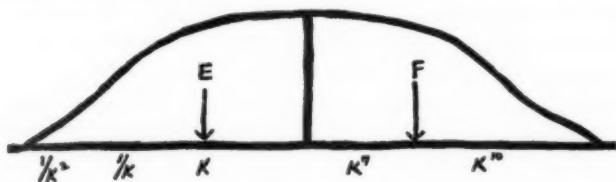
Insurance against various hazards, some of which vary with output as "*uncollectible debts*" and others such as "*fire*" do not.

A casual glance suffices to show that these items are arranged so that in the left column are the items which are easily chargeable to each piece produced, and tend to vary directly with the output, and in the right column are the items which do not vary directly with the output, but follow in gradation from manufacturing sup-

plies and so-called departmental "non-productive" labor, which increases considerably if output increases greatly, up to taxes and interest, which permit of tremendous increase of output, with comparative slight increase in themselves.

Let us call E the sum of the items in the left column for a given time, place and firm, *i. e.*, total expense varying with output. F is the sum of the items in the right column, the relatively fixed charges, including interest (I).

In strictness, there is no hard and fast line between running and fixed expenses, but like many other magnitudes in economics and biology, the correct statement is that expenses may be ranged along a frequency distribution according to the ratio which they vary with output.



The vertical scale in the above figure represents amount of expense and the horizontal axis the form-rate at which expense varies with output. To make a concrete case, we may assume the ratio of direct variation K , and then vary K from K^∞ to $1/K^\infty$, placing the amount of expense opposite the appropriate value of the power of K .

There is little doubt that this curve could be easily fitted by either Professor Edgeworth's types of frequency curves or by Professor Karl Pearson's skew curves, and along these lines, I believe, great development is possible for theoretical economics, since by posit-

ERRATA

Page 42, line 8 (from bottom). For the first K in this line
read K° .

Page 43, line 6 (from top). For K read K° .

ing these frequency distributions severe thinking will be able, step by step, to work out the various cases. We may now split the frequency curve at the median, and take the average of each half of the frequency array. The assumption of the theory of railway rates is that the average of the left half is about K , *i. e.*, direct variation, and this quantity is termed running expense, and will be designated as E . The average of the right half is a power of K sufficiently high to be treated in analysis as a constant, provided output is not increased too greatly. For instance, if $K = .10$, K^{10} the average variation of fixed expense, is $(.10)^{10} = .0000000001$, an almost negligible variation. In the following analysis, letters are used to represent the variables as explained in the following table:

TABLE OF VARIABLES.

No.	
1.	A, B, C, etc. = different articles.
2.	π_a, π_b = selling price for articles A, B, etc.
3.	ω_a = output of article A.
4.	E_a = total expense varying with output, <i>i. e.</i> , "running expenses."
5.	F_a = total expenses not varying with output, <i>i. e.</i> , "fixed expenses," not including interest.
6.	P_a = profit. = Sales—running expenses—fixed expenses.
7.	P'_a = profit upon article = price—piece cost—fixed expense cost.
8.	$\omega_a \pi_a$ = value of sales.
9.	$e'_a = \frac{E_a}{\omega_a}$ = piece cost per article.
10.	$p'_a = \frac{P_a}{\omega_a} = \frac{\omega_a \pi_a - E_a - F_a}{\omega_a} = \pi_a - e'_a - \frac{F_a}{\omega_a}$
11.	C = original capital of entrepreneur.
12.	C' = borrowed capital, <i>i. e.</i> , credit.

The next three quantities depend on the preceding for definition, and are capable of double definition according to whether we take as our fundamental variable

cost value or selling value. To provide for both possibilities, I have given the two definitions in each case.

Cost value <i>i.e.</i> , $E_s + F_s$	Selling value <i>i.e.</i> , $\omega_s \pi_s$
13a $P_s = \frac{\omega_s p'_s}{E_s + F_s}$ = percentage of profit on cost of production.	13b $p = \frac{\omega_s p'_s}{\omega_s \pi_s} = \frac{p'_s}{\pi_s}$ = percentage of profit on selling value or sales.
14a $e = \frac{\omega_s e'_s}{E_s + F_s}$ = percentage of varying expense reckoned on total cost of production.	14b $e = \frac{\omega_s e'_s}{\omega_s \pi_s} = \frac{e'_s}{\pi_s}$ = percentage of varying expenses on sales.
15a $n = \frac{E_s + F_s}{C}$ = number of times capital is turned over reckoned under cost of production.	15b $n = \frac{\omega_s \pi_s}{C}$ = number of times capital is turned over reckoned under selling value.

The definition of (n)* (15b) as sales value divided by capital is the common one in the business world. On the other hand, (p) and (e) are generally computed on cost, although 13b is often used. In many kinds of business p is computed on the wholesale price of goods, *i.e.*, a fraction of e . It seemed wise, therefore, to provide at least for two possibilities. We are free to use the formulæ that are most convenient in expression, since the definitions are of such a form that the quantities are readily transferable. At the same time no confusion can arise since the main possibilities are clearly provided for.

The balance of the paper may be divided into four parts. (I) The percentage on capital realized by the concern operating without credit. (II) The percentage on capital realized by the concern operating with credit. (III) The gain experienced by the use of credit meas-

*To the reader unfamiliar with the conception of rate of turnover, reference should be made to Professor Irving Fisher's article, "The role of capital in economic theory," *Economic Journal*, 1897, in which the importance of this factor was first enunciated.

ured in percentage on capital. (IV) Discussion of this formula with reference to "high finance."

(I.) *Percentage on capital realized by the concern operating without credit.*

Net profit = sales value — running expenses — fixed expenses.

It is plain that there are eight cases, as we use definitions (a) or (b) for quantities (p), (13), (e) (14) and (n) (15). The table of possibilities follow :

Cases.	Form.	Expressions.	(p)	(e)	(n)
i	aaa	13a, 14a, 15a-----	$\frac{\omega p'}{E+F}$	$\frac{\omega e'}{E+F}$	$\frac{E+F}{C}$
ii	aab	13a, 14a, 15b-----	$\frac{\omega p'}{E+F}$	$\frac{\omega e'}{E+F}$	$\frac{\omega \pi}{C}$
iii	aba	13a, 14b, 15a-----	$\frac{\omega p'}{E+F}$	$\frac{e'}{\pi}$	$\frac{E+F}{C}$
iv	abb	13a, 14b, 15b-----	$\frac{\omega p'}{E+F}$	$\frac{e'}{\pi}$	$\frac{\omega \pi}{C}$
v	baa	13b, 14a, 15a-----	$\frac{p'}{\pi}$	$\frac{\omega e'}{E+F}$	$\frac{E+F}{C}$
vi	bab	13b, 14a, 15b-----	$\frac{p'}{\pi}$	$\frac{\omega e'}{E+F}$	$\frac{\omega \pi}{C}$
vii	bba	13b, 14b, 15a-----	$\frac{p'}{\pi}$	$\frac{e'}{\pi}$	$\frac{E+F}{C}$
viii	bbb	13b, 14b, 15b-----	$\frac{p'}{\pi}$	$\frac{e'}{\pi}$	$\frac{\omega \pi}{C}$

It will not be necessary to point out to this audience more than a single case and then produce the results for the remaining cases, reached in exactly the same manner.

Case i. Let

$$p = \frac{\omega p'}{E+F}, e = \frac{\omega e'}{E+F}, n = \frac{E+F}{C}.$$

It is plain that value of sales is $nC(1+p)$, varying expenses $e(nC)$ and fixed expense F . Consequently,

net profit = sales — varying expenses — fixed expenses ;

$$(16) \text{ net profit} = nC(1+p) - e(nC) - F.$$

Dividing by C , we obtain the percentage of net profit on capital of the entrepreneur, operating without credit in terms of turnover, capital, percentage of profits, percentage of varying expense, and fixed expenses. Percentage net profit

$$\begin{aligned} &= n(1+p) - en - F/C \\ (17) \quad &= n(1+p-e) - F/C \end{aligned}$$

Working out the remaining seven cases, we obtain values for the net percentage profit, given in the table below. All results represent the same quantity—net percentage profit, but expressions differ according to various commercial definitions of p , e and n .

TABLE OF EXPRESSIONS FOR NET PERCENTAGE PROFIT.

Cases.	No.	Possibilities.	Net Percentage Profit.
i	(18)	13a, 14a, 15a	$n(1+p-e) - F/C$
ii	(19)	13a, 14a, 15b	$n(1+e-pe) - F/C$
iii	(20)	13a, 14b, 15a	$n((1+p)(1-e)) - F/C$
iv	(21)	13a, 14b, 15b	$n(1-e) - F/C$
v	(22)	13b, 14a, 15a	$n\left(\frac{1}{1-p} - e\right) - F/C$
vi	(23)	13b, 14a, 15b	$n\left(1 - \frac{e}{1-p}\right) - F/C$
vii	(24)	13b, 14b, 15a	$n\left(\frac{1-e}{1-p}\right) - F/C$
viii	(25)	13b, 14b, 15b	$n(1-e) - F/C$

To illustrate these formulae, suppose the stock of a retail store is turned over ten times per year. Assume the percentage of profit on total cost to be thirty per cent, and the percentage of varying expense ninety per cent of total expense. The fixed charges might be \$500 and the capital of the entrepreneur \$1,000. Then the percentage realized on capital would be by (18)

$$\begin{aligned} &10(1 - .30 - .90) - 500/1000 \\ &400\% - 50\% = 350\% \end{aligned}$$

In certain kinds of business, one set of definitions would be more useful than another from the standpoint

of practical statistics, and in some instances the treatment of E alone as the fundamental variable would be useful. The definitions of case vi are widely used by manufacturers and wholesalers who sell by catalogue. A list price is the basis for all discounts. Consequently, the percentage of profit is computed on the maximum price charged, *i. e.*, the list price. Where the list price is maintained on the one price basis to all, these definitions are very convenient. But, when, as is generally the case, the list price is simply the basis of charging what the traffic will bear, by giving a different discount to each customer, these definitions are not so convenient as some of the others.

(II.) *The percentage on capital realized by the concern operating with credit.*

The volume of the turnover is now increased from C to $C + C'$; *i. e.*, the original capital (C) plus the borrowed capital (C').

Case (i). Let

$$p = \frac{op'}{E + F} \quad e = \frac{oe'}{E + F} \quad n = \frac{E + F}{C + C'}$$

Net profits = sales — varying expenses — fixed expenses — interest.

Substituting for sales, $n(1 + p)(C + C')$, varying expense, $en(C + C')$ fixed expenses, F , and interest $C'i$, we have: (26) net profits

$$= n(1 + p)(C + C') - en(C + C') - F - C'i.$$

Dividing the above expression by C , we obtain the percentage net profit on capital.

Percentage net profit

$$\begin{aligned} &= \frac{C + C'}{C} (n(1 + p)) - \frac{C + C'}{C} (ne) - \frac{F}{C} - \frac{C'}{C} i \\ (27) \quad &= \frac{C + C'}{C} (n(1 + p - e)) - \frac{F}{C} - \frac{C'}{C} i \end{aligned}$$

The percentage net profit is given for the eight possible cases in the following table :

TABLE NET PERCENTAGE PROFIT WITH CREDIT.

<i>Cases.</i>	<i>No.</i>	<i>Net percentage profit.</i>
i	(27)	$\frac{C+C'}{C} (n(1+p-e)) - F/C - \frac{C'}{C}i$
ii	(28)	$\frac{C+C'}{C} (n(1+e-pe)) - F/C - \frac{C'}{C}i$
iii	(29)	$\frac{C+C'}{C} (n(1+p)(1-e)) - F/C - \frac{C'}{C}i$
iv	(30)	$\frac{C+C'}{C} (n(1-e)) - F/C - \frac{C'}{C}i$
v	(31)	$\frac{C+C'}{C} (n(\frac{1}{1-p} - e)) - F/C - \frac{C'}{C}i$
vi	(32)	$\frac{C+C'}{C} (n(1 - \frac{e}{1-p})) - F/C - \frac{C'}{C}i$
vii	(33)	$\frac{C+C'}{C} (n(\frac{1-e}{1-p})) - F/C - \frac{C'}{C}i$
viii	(34)	$\frac{C+C'}{C} (n(1-e)) - F/C - \frac{C'}{C}i$

(III.) We are now in a position to measure the gain in percentage of net profit on capital realized by the same concern operating with and without credit. It is plainly the difference between the expressions given in the two preceding tables for the respective cases.

Without going in detail into the results under the various possibilities with respect to whether the company increases its business solely through the influx of credit or in addition through a readjustment of the factors (n), (p) and (e), I shall consider briefly the case in which the business increases and (n), (p) and (e) remain constant, and secondly the case in which (n), (p), and (e) change. It is probable that careful study along the lines of maxima and minima would be valuable, but at this point algebraic methods are sufficient for our purposes.

To illustrate the method, case (i) is worked out in detail under the assumption that the business increases

solely through the influx of credit and the factors (n), (p) and (e) remain unchanged, an assumption which would be seldom realized. Subtracting (17) from (27), we obtain (35).

(27) Net percentage profit with credit

$$= \frac{C + C'}{C} (n'(1 + p - e)) - F/C - \frac{C'}{C} i$$

(17) Percentage net profit without credit

$$= (n(1 + p - e)) - F/C$$

Gain in percentage of net profit through use of credit

$$= \frac{C'}{C} (n(1 + p - e)) - \frac{C'}{C} i$$

$$(35) \quad = \frac{C'}{C} (n(1 + p - e) - i)$$

In words, the gain realized by the use of credit is the product of two factors, the ratio of borrowings to capital and the difference between the turnover times the net percentage profit on total cost and the rate of interest.

The following table gives the expressions of this gain for the eight cases that we have previously used.

TABLE OF EXPRESSIONS FOR THE GAIN THROUGH THE USE OF CREDIT.

Cases.	No.	
i	(35)	$\frac{C'}{C} (n(1 + p - e) - i)$
ii	(36)	$\frac{C'}{C} (n(1 + e - pe) - i)$
iii	(37)	$\frac{C'}{C} (n(1 + p)(1 - e) - i)$
iv	(38)	$\frac{C'}{C} (n(1 - e) - i)$
v	(39)	$\frac{C'}{C} (n(1 - \frac{e}{1 - p}) - i)$
vi	(40)	$\frac{C'}{C} (n(\frac{1}{1 - p} - e) - i)$
vii	(41)	$\frac{C'}{C} (n(\frac{1 - e}{1 - p}) - i)$
viii	(42)	$\frac{C'}{C} (n(1 - e) - i)$

If now we assume that the volume of sales increases with a readjustment of the turnover, percentage of profit and percentage of varying expense, which is probably the ordinary case applicable to the industrial combinations, the expression of percentage, net profit on capital, assuming the original capital the same, is easily obtained.

(27) Net percentage profit with credit

$$= \frac{C+C'}{C} (n_2 (1 + p_2 - e_2) - F/C - \frac{C'}{C} i)$$

(17) Net percentage profit without credit

$$= n_1 (1 + p_1 - e_1) - F/C$$

(36) Gain in net percentage profit through use of credit

$$= \frac{C'}{C} (n_2 (1 + p_2 - e_2) - i) + (n_2 - n_1) \\ + (n_2 p_2 - n_1 p_1) + (n_1 e_1 - n_2 e_2)$$

(IV.) *Discussion of formula (36).*

In discussion of the principles, one formula is as useful as another. I shall, therefore, confine the discussion to formula (36), in which the gain in net percentage profit is

$$\frac{C'}{C} (n_2 (1 + p_2 - e_2) - i) + (n_2 - n_1) + (n_2 p_2 - n_1 p_1) + (n_1 e_1 - n_2 e_2)$$

The subscript (2) refers to the value of the factors under the régime of credit with the larger amount of business, and (1) to the value of the factors when borrowed capital is not used. We may on inspection derive the following conclusions:

(a) Provided $n_1 = n_2$, $p_1 = p_2$ and $e_1 = e_2$, as long as the product of the rate of turnover times unity plus the difference of percentage of profit and varying expense, i.e., $(n(1 + p - e))$, is greater than the interest rate, (i), gain arises through the use of credit, and it is directly

proportioned to the amount of credit extension and inversely proportioned to the amount of capital.

(b) The rate of turnover (n) is very considerably under control, and the methods of increasing (n) lie primarily in advertising, *i.e.*, in the extension of the buying field. An efficient organization of the departments of the concern tends to raise (n), by diminishing the stock necessary to provide for fluctuations in the arrivals and shipments of the commodity. A reduction of percentage of profit, (p), increases the rate of turnover, less in non-competitive than in competitive goods.

(c) The variable (p), *i.e.*, percentage of profit on total costs is largely under control, and its value is fixed at the figure which will maximize the sum of the expressions $n(1 + p - e)$, of which there are as many as there are articles sold. In highly non-competitive goods, this is easily accomplished by maximizing for each non-competitive article the expression $n(1 + p - e)$. In highly competitive goods, the percentage of profit is fixed with reference to the effect on the selling field, and a negative value to $n(1 + p - e)$ for competitive goods will often temporarily increase the total sum of profit on all goods through sympathetic buying occasioned by extensive advertising. At the same time, every effort will be made to destroy permanently the competitive article.

(d) In the successful industrial combinations, the direction of motion lies in (i) increasing the ratio C'/C ; (ii) increasing the turnover, *i. e.*, making n_2 greater than n_1 , which is one of the most effective lines of advance, and is the secret of the modern department store; (iii) in the reduction of e , although in several lines the opposite takes place owing to increased advertising costs, a disadvantage which is more than counterbalanced by the increases of n and p .

(h) The factor (i), the interest rate, connects every business of the country with the subject of financing. The direction of gain is plainly in the reduction of (i). Credit takes three forms, (i) the loan of goods direct; (ii) the loan of capital for short periods; (iii) the loan of capital for long periods. These forms are determined by the security of the loan, the person of the lender, the rate of interest and the duration of the loan, and not by any essential difference in the nature of the transaction.

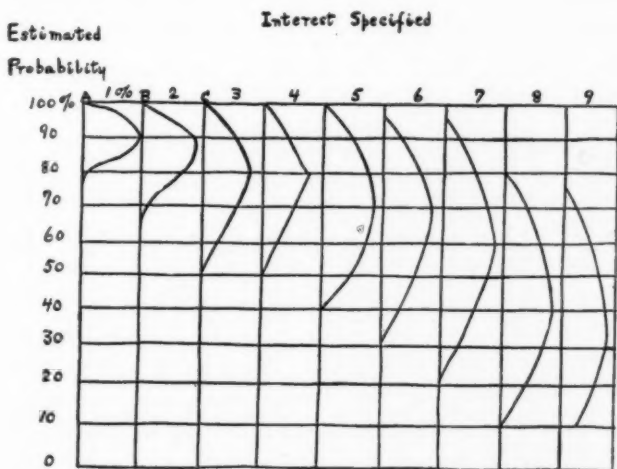
(i) In the case of the loan of goods direct, the manufacturer is the lender to the jobber, the jobber to the wholesaler, and the wholesaler to the retailer. If one per cent discount is given for payment in ten days instead of in thirty days, the rate of interest is a little above 1 per cent for twenty days, or 18 per cent per annum. This form of financing is the most expensive and is granted on the smallest security.

(ii) The loan of capital for short periods is largely the work of banking institutions and note-brokers. The security is better and the interest is lower.

(iii) The loan of capital for long periods is theoretically on still better security and at considerably lower interest rates. The lenders are investors who depend upon the interest for income. Investors will pay more for an income which is stable than for one which is intermittent, even though over a given term of years the actual total yield is the same in both cases. The reason, of course, is that the average investor lives up to his income, and a hundred dollars deducted from next year's income is not compensated by an extra hundred during the present year which by next year will have been spent.

The art of financing is, therefore, simply the capitali-

zation of the net earnings of a concern, by grading a series of loans according to diminishing security and increasing interest, or in President Hadley's words, an increasing "rate of commutation." The term "water" in securities, as it is generally used, is meaningless. Buyers and sellers base their esteem value entirely on probable rates of income and probable stability of earnings. For the entrepreneur both these hazards operate. If now, in the distribution of control of productive wealth, contracts can be drawn by which either probability can be reduced or eliminated, the security will sell on the basis of increased security. A series of skew curves will perhaps illustrate the reasoning.



The interest rates specified in the contract are written along the upper line at the heads of the columns. The distances A to B, B to C, etc., is perhaps 35 per cent in each case. Down the vertical column is the estimated joint probability of getting the given interest regularly. The

skew curves drawn in each column show how the percentage of capital for a given interest is distributed according to risk. It is plain that the area of each curve is 100 per cent, and the total amount at any interest rate and probability is the given ordinate multiplied by the total amount which loans at the given rate of interest.

The probability of obtaining the interest regularly may be approximately discovered from the statistics of earnings over past years. If the business is a stationary one, the chance of failure to pay interest is plainly determined by the difference between the average earnings and the amount required to pay the interest on the issue divided by approximately two-thirds of the standard deviation of the earnings about the average. The risk can from this data be estimated from the probability tables. For instance, if the above result is two, the probability is 4:1; if three, 19:1. This is the real reason why it is safe to capitalize combinations far in excess of cost of plant. If the business is a growing one, the same method may be adopted except a growth axis is now the basis rather than the average, and the probability of failure to pay interest a lessening one, varying with each successive year. This entire field is capable of exact statistical study, and it is in this world of probability and interest that financiers work. Their work is to provide devices for reducing the interest rates, and increasing the ratio C'/C . Thus a concern operating without credit might earn 6 per cent on a capital stock of \$100,000, par value \$100, with a probability of 50 per cent. The fluctuation of profits in different years might range between 4 per cent and 8 per cent. Proper financing with bonds at 4 per cent, \$50,000, preferred stock 5 per cent accumulative, \$40,000, would provide \$90,000 capital and the bonds would have say a security of 90 per cent,

and the preferred stock 70 per cent. This would leave \$10,000 for the owners of the equities to provide. Without credit, the net percentage on capital is 6 per cent. With credit, the net profit is on the average 6 per cent on \$100,000 — (4 per cent on 50,000) — (5 per cent on 40,000) = 6,000 — 2,000 — 2,000 = \$2,000. Two thousand dollars could be under favorable conditions capitalized at $6\frac{2}{3}$ per cent, and the stock sell at par, *i. e.*, \$32,000. The result is an excess of \$22,000 of "water," and since control can be maintained with about 50 per cent ownership, the entrepreneur can withdraw all of his capital, \$10,000, with his share of the water, one-half of \$22,000, \$11,000, and still have \$1,000 clear profit and complete control. This, of course, is not far from the ideal case, where in the expression for gain through credit

$$\frac{C'}{C} (n(1+p-e) - i),$$

C is steadily diminished until it approaches zero as its limit, and C' is steadily increased to the limit of the credit market, so that the ratio C'/C nearly fulfills the dreams of some of our promoters, an infinite percentage of profit on a zero investment of capital.

(2) In summary, therefore, from the standpoint of the distribution of the control of productive wealth, in the line of industrial progress lie all causes or inventions which increase the ratio C'/C (from a simple book credit or personal note up to the intricate financing of the Northern Securities Co.); all causes increasing the factor n (such as time saving processes of manufacturing, advertising and efficient organization); also the factor (p) (for instance special brands which admit of monopoly prices, or that constancy of price schedules, which wide control affords); and to decrease (e) and (i) is also

profitable. Time saving processes and the economic handling of labor as well as the elimination of useless labor, such as competing salesmen, suffice to lower (*e.*) Finally, high finance with its long series of credit instruments, ranged in gradation of increasing security and decreasing interest accomplishes the latter. Indeed, the attitude that credit extension is unproductive seems to me very wide of the mark. The devices which quickly enable the men who can to enter upon the work to which capability has pointed, have arisen not without reason.

To my mind, the situation calls not so much for publicity with respect to the statistics of the private information of the entrepreneur, which is of the nature of patent right and of less value to the public, who cannot analyze, than to the rival who analyzes to complete, as for a campaign of education, which shall teach the advantages and disadvantages of credit instruments from the investor's standpoint with sharp emphasis on the great hazards of common stock, and especially on how very little a common stockholder has a right to expect.

THE THEORY OF LOAN CREDIT IN RELATION TO CORPORATION ECONOMICS—
DISCUSSION

FREDERICK A. CLEVELAND: To state the points briefly and concisely, my objections to the method employed by Dr. Norton are two: (1) that the method used for reaching his conclusions is unscientific; and (2) that the method of presenting his results is not one which may be readily understood by the economists themselves with whom it is necessary to co-operate in the development of a science, nor is it readily intelligible to the public in whose education we are primarily interested. These objections will be presented in the order suggested.

The logical method by which Dr. Norton reaches his conclusions is entirely *a priori*. Such a process of reasoning is entirely proper when applied to mathematics or to the development of any scheme of thought from premises which are well established, and concerning which there can be no dispute nor objections raised by those to whom this form of reasoning is addressed. Dr. Norton, in his paper, however, has attempted to apply *a priori* processes of reasoning to assumptions which are neither established, nor can they be admitted for the sake of argument without doing violence to the subject which he is seeking to unfold. For example, his most fundamental conclusion which is used as a basis for further *a priori* reasoning is that competition does not enter into the prices of monopoly goods. This assumption or conclusion is not a generally accepted one—in fact the position taken has been a subject of heated discussion among economists themselves, and certainly

would not be accepted by men in the business world as established.

Mathematical reasoning is wholly *a priori*; but the truth of mathematical conclusion depends entirely on the truth and general acceptance of its premises. To attempt to apply mathematical reasoning to assumptions that are not accepted, and concerning which there has been no conclusive demonstration as to the truth, can result in nothing but a waste of energy on the part of the one making the application of the method to the development of his subjects, and a waste of time on the part of those who attempt to follow the development. It is for the reason that no broad generalizations have been established, and that none will be admitted without question, that the *a priori* method alone cannot be used for the unfolding of a science. It is in those branches of knowledge only where research has been applied as the method of inquiry, and where *a priori* reasoning has been employed simply as a guide to research, that progress has been made.

In economics the method of the past has been one of reasoning from primary assumption to a further conclusion. The scientific method seems not to have won a place among those who have devoted themselves to the field of economic inquiry. The result is that there has not to this time been established a single conclusion that may be accepted without controversy, even by economists themselves. It is this fact that makes futile the method of Dr. Norton and of all others who seek to apply mathematical or other forms of *a priori* reasoning alone to constructive thought in the field of business. Before we can ever hope to develop a systematic body of knowledge which will win for itself the confidence of the thinking world, the method of scientific

research—that method of reasoning which treats present generalizations purely as working hypotheses, and which from these goes out into the business world and attempts to assemble and classify the data around these hypotheses—a method which refuses to accept any conclusion as a basis for reasoning without again bringing that reason to the basis of scientific proof must be invoked by the economist.

The second objection urged by way of criticism to the paper under discussion pertains to the method of presentation. If the assumption heretofore made that a science must be the result of co-operative effort, and further, that the purpose of scientific investigation is to impart information, then it follows that one who is seeking to contribute to the present sum of existing knowledge should present the results of his labor in such form as to permit those working with him to avail themselves of the results with greatest facility; the form of presentation should be one which most readily appeals to the intelligence of the class to whom it is addressed.

If we assume that the paper under discussion was addressed to economists, then the form of presentation should be one that would be readily understood by economists. Again, if it were addressed to the public it should be stated in a language familiar to the public. I do not think that I would be thought to be hypercritical if attention were called to three characteristics in which the paper of Dr. Norton did not seem to conform to the purpose as above expressed, viz: (1) That in certain parts a nomenclature has been used which is not common within the field of economics itself, and is not at all understood by the public. (2) that the use made of diagrammatic emblems does not lend clearness to

the exposition. (3) that mathematical formulae are not a language that can be readily followed, and therefore is not one which the economists or the public at large can follow with facility.

As to the nomenclature used, and to which reference is made, I may cite the following: "Weber's law suggests that on the assumption of equality of enjoyment, equality of properties maximizes this ophelimity." The meaning of this clause to most readers even in the field of economics would be absolutely lost, whereas, the same idea might be very easily expressed in terms that are in ordinary and general use. As to the diagrammatic representation of thought presented, there are few people who are accustomed to think in terms of "skew curves," etc.; to most readers no idea is conveyed by such a device. If after hours of serious thought the message which the writer has to convey may be drawn from the context, it is at the cost of time and effort greater than most readers will be willing to give. It is suggested that the same ideas might be expressed without this lumbering method of expression—an expression entirely plain and clear to one who has become an expert in the handling of obscure terms, ingenious diagrams and mathematical formulae, but which stand in the way of conveying ideas to economists and to others who have been accustomed to think about similar problems, and to express their thought in a different way. As to the resort made to mathematical formulae there is nothing in the subject handled which requires such a presentation, and therefore, it is suggested that this method of conveying thought on the subject is one least intended to make whatever results have been obtained, useful to others.

These criticisms would not be offered, in Dr. Norton's

absence, were they not intended as a protest against the whole class of economic writings for which the paper before us stands as an example. To be more specific it is urged: (1) that the field of business, both public and private, is capable of scientific treatment—that the facts may be collected, classified and co-ordinated, and that scientific conclusions may be reached in this branch of inquiry as well as in physiology, anatomy and botany; (2) that the *a priori* method which begins by taking for granted certain broad generalizations, and from these first assumptions projects reason out into intellectual space is not a method by which a science of economics may be developed; (3) that those who have turned from the usual method of expression to mathematics are simply employing symbols and forms to make the reason itself more exact, but by this can add absolutely nothing unless each hypothesis is brought to the test of scientific research, and this the mathematical economists have failed to do; (4) that this form of erudition, based as it is solely on philosophic reflection and a long line of purely empirical reasoning, when so stated as to be readily understood, must still put the reader to the task of making a scientific test of its conclusions and therefore can be of little value; but when it also attempts to express itself in symbols and signs unusual or which first require translation, it so far compounds the difficulty as to make the result entirely questionable. Working from a few commonplace assumptions the economists have for two centuries been building their tower of Babel. Gradually they have risen from one premise to another; but not having a method of inquiry which has brought them into intellectual co-operation, each has followed his own line of projection, and each from his own high pedestal talking in a language

peculiar to himself has addressed himself to his own imaginary audience, until they can no longer understand each other. By men of affairs (those who have some knowledge of economic data) to use the language of a recent review, "they are regarded as mere pedants and pundits beating their ineffectual wings in a void of of their own creation." Should the economist forsake the method of our primitive philosophies, and accept the method of modern science, the business men would be first to welcome his results; and gradually a science of economics would rise to the plane of history, chemistry, physics and the other established branches of exact knowledge.

STATE TAXATION OF INTERSTATE COMMERCE

FRANK J. GOODNOW

The question as to the constitutionality of the taxation of interstate commerce by the states could not very well arise in the early history of the country. There were no such things as interstate transportation companies. There were hardly any interstate or state roads. Furthermore, the expenses of the state governments were, on account of the modest character of the work they did, very small in amount, and these expenses could easily be met by the taxes which were universally levied on property and on occupations. The first attempt made by any state which led to litigation was that of the state of Maryland to charge a fixed sum for every coach passing over the national road. The propriety of such a tax came up before the Supreme Court of the United States, which decided against the state, not however on the ground that the taxation by a state of interstate commerce was prohibited by the Constitution, but on the ground that the particular action taken by the state of Maryland was in violation of a contract made by it with the United States. (See *Searight vs. Stokes*, 3 How. 151.)

Before the question as to the power of the states to tax interstate commerce came up definitely before the Supreme Court, that body had so construed the commerce clause of the Constitution as to make it extremely probable that the court would decide that the taxation of interstate commerce by the states was improper. This commerce clause gives to Congress the power "to regulate commerce with foreign nations and among the

several states and with the Indian tribes." The Supreme Court had, early in its history, decided that by this clause an exclusive power of regulation as to all matters needing uniform and not admitting of local treatment, was vested in Congress. In the great case of *Gibbons vs. Ogden* (9 Wheat. 1), decided in 1824, the Supreme Court denied the right of the state of New York to grant an exclusive right of steam navigation on the Hudson River. Chief Justice Marshall intimated that this power was exclusively in Congress, saying:

"It has been contended by the counsel for the appellant that, as the word 'to regulate' implies in its nature full power over the thing to be regulated, it excludes, necessarily, the action of all others that would perform the same operation on the same thing. . . . There is great force in this argument, and the Court is not satisfied that it has been refuted."

At the same time Mr. Justice Marshall says expressly that the decision of this question was not necessary in order to decide the case before the court, for the reason that the action of the state was in conflict with that of Congress and was, therefore, improper.

In the later case of *Cooley vs. Board of Port Wardens* (12 How. 300), decided in 1851, state regulations relative to pilots were upheld. Mr. Justice Curtis, who gave the opinion of the court, says:

"It becomes necessary, therefore, to consider whether this law of Pennsylvania, being a regulation of commerce, is valid. The act of Congress of the 7th of August, 1789, sect. 4, is as follows:

"That all pilots in the bays, inlets, rivers, harbors and ports of the United States shall continue to be regulated in conformity to the existing laws of the states, respectively, wherein such pilots may be, or with such laws as the states may respectively hereafter enact for the purpose, until further legislative provision shall be made by Congress.

"If the law of Pennsylvania now in question had been in existence at the date of this act of Congress, we might hold it to have been adopted by Congress, and thus made a law of the United States, and so valid. Because this act does, in effect, give the force of an act of

Congress to the then existing state laws on this subject, so long as they should continue unrepealed by the state which enacted them. But the law on which these actions are founded was not enacted till 1803."

Mr. Justice Curtis, therefore, comes to the conclusion that the act of the state of Pennsylvania could not be justified as having been adopted by Congress. Later on in the opinion Mr. Justice Curtis says:

"Whatever subjects of this power are in their nature national, or admit only of one uniform system, or plan of regulation, may justly be said to be of such a nature as to require exclusive legislation by Congress. That this cannot be affirmed of laws for the regulation of pilots and pilotage is plain. The act of 1789 contains a clear and authoritative declaration by the first Congress that the nature of this subject is such, that until Congress should find it necessary to exert its power, it should be left to the legislation of the states; that it is local not national; that it is likely to be the best provided for, not by one system or plan of regulations, but by as many as the legislative discretion of the several states should deem applicable to the local peculiarities of the ports within their limits."

On the basis of this reasoning the court upheld the act of Pennsylvania in question.

Somewhat later in its history the court extended the principle of the exclusiveness of the power by adding the corollary that when Congress had failed to exercise its power, it had done so because it was its will that the commerce subject to its regulation should not be regulated. This view is hinted at by Mr. Justice Johnson in the case of *Gibbons vs. Ogden* and by Mr. Justice Grier in the *Passenger Cases* (7 How. 283), decided just before (1849), and is definitely adopted by the Supreme Court in the case of the *State Freight Tax* (15 Wall. 232), decided in 1872. The principle is brought out as clearly as anywhere in *Robbins vs. Shelby County Taxing District* (120 U. S. 489), decided in 1886.

Finally it was also decided at an early time that taxation was regulation. The first hint that this was to be

the view to be taken is to be found in Chief Justice Marshall's opinion in *Brown vs. Maryland* (12 Wheat. 419), decided in 1827. The first case, however, which definitely places the Supreme Court on record on this point is the *Passenger Cases* (7 How. 283), where the order of the court was that

"It is the opinion of this court that the statute law of New York, by which the health commissioner of the city of New York is declared entitled to demand and receive, from the master of every vessel from a foreign port that should arrive in the port of said city, the sum of one dollar for each steerage passenger brought in such vessel, is repugnant to the Constitution and laws of the United States, and therefore void."

This decision resembled the late decision in the *Insular cases* in that while there was a decision there was no opinion, almost every member of the court writing his own opinion. Among the dissenting opinions is that of Chief Justice Taney, who denies that taxation is regulation, saying:

"The taxing power of the state is restrained only where the tax is directly or indirectly a duty on imports or tonnage. And the case before us is the first in which this power has been held to be still further abridged by mere affirmative grants of power to the general government. In my judgment this restriction on the power of the states is a new doctrine in opposition to the contemporaneous construction and the authority of adjudged cases. And if it is hereafter to be the law of this court, that the power to regulate commerce has abridged the taxing power of the states upon the vehicles or instruments of commerce, I cannot foresee to what it may lead; whether the same prohibition, upon the same principle, may not be carried out in respect to ship-owners and merchandise in a way seriously to impair the powers of taxation which have heretofore been exercised by the states."

Notwithstanding the dissent from this position, the principle was upheld, and nothing is clearer at the present time than that taxation of commerce is regulation of commerce.

It may, therefore, be said that before the question of the regulation of commerce among the states came up

for consideration, certain principles had been adopted by the Supreme Court with regard to that part of the clause which affected commerce with foreign nations. It was only natural, therefore, that when the matter of commerce among the several states did come up for consideration, the principles which had been applied to commerce with foreign nations should be applied to commerce among the several states, for the power with regard to both kinds of commerce was to be found in the same clause. At the same time it is well to remember that, while the Constitution contains nothing further with regard to commerce among the several states, it does contain a number of provisions which positively prohibit action on the part of the states relative to commerce with foreign nations. Thus the Constitution in article I, section 10, forbids a state to enter into any treaty, alliance or confederation or agreement or compact with another state or with a foreign power, or, without consent of Congress, to lay any imposts or duties on the imports or exports, except what may be absolutely necessary for executing its inspection laws.

It is thus seen that the views expressed with regard to the taxation of foreign commerce may have been influenced not merely by the commerce clause, but as well by these other clauses of the Constitution. Indeed it is very evident that Chief Justice Marshall's opinion in *Brown vs. Maryland* must be read in the light of the prohibition placed upon the states to tax imports as well as in that of the commerce clause.

But however that may be, certain principles which had been adopted with regard to commerce with foreign nations were actually later applied to commerce among the several states. These were, that the power of Congress to regulate was exclusive as to all matters which

admit of uniform regulation; that, as to such matters, the inaction of Congress was to be regarded as an expression of its will that there should be no regulation; that, as to matters which do not admit of such uniform regulation, the states might act until Congress acted, and, finally, that taxation was regulation.

What remained to be determined then was, what was commerce among the several states. It has already been said that in our early history there was no particular need of taxing such commerce. With, however, the development of great interstate transportation companies whose ownership was widely distributed among their security holders, there sprang into existence an immense amount of personal property which did not subject itself so readily to the taxing power of the state as had the tangible personal property which, prior to the development of corporate securities, had constituted a large, if not the largest, part of the personal property subject to taxation. Further, the development of industrial civilization imposed greater burdens upon the states, which, in order to protect the weaker classes of the community, had to extend their sphere of governmental activity. The growth of cities had the same effect. City government became necessarily more expensive. The industrial states first attempted to solve this problem by assigning the real property taxes to the localities and by securing new state revenues from the various corporations which had sprung up and flourished through the grant to them of privileges by the states in which they conducted their operations.

Pennsylvania seems to have taken the lead in this movement which began, roughly speaking, about 1870. No attempt will here be made to give an account of the movement. Lack of space forbids. All that can be said

is that among other corporations the transportation corporations were subjected by the states to various forms of taxation, which resulted in a vast amount of litigation before the Supreme Court. This body has not always been consistent in the opinions which have been officially expressed by its representatives. At the same time its decisions are, it is believed, with very few exceptions susceptible of reconciliation, if attention is directed to the exact facts of the cases rather than to the expressions of opinion on the part of the judges. The result of these decisions is somewhat as follows:

First. License taxes imposed upon commercial houses of other states or on corporations engaged in interstate commerce for the privilege of selling within the state goods to be brought from other states or of conducting a business which transcends state lines are forbidden. The following license taxes have been held to be improper. (1) License taxes to sell in the state goods of foreign origin, imposed on the seller because of the foreign origin of the goods; (2) license taxes imposed upon drummers who come into the state to solicit orders for a foreign house, where the goods ordered are outside of the state at the time of the sale; (3) license taxes imposed upon telegraph or transportation companies for the privilege of sending messages outside of the state, or for shipping goods out of the state. (See *Welton vs. Missouri*, 91, U. S. 275; *Robbins vs. Shelby County*, 120 U. S. 489; *Telegraph Co. vs. Texas*, 105 U. S. 460; *Leloup vs. Port of Mobile*, 127 U. S. 640; *Norfolk & Western Ry. Co., vs. Pennsylvania*, 136 U. S. 114).

Second. Taxation of the objects of interstate commerce, that is, objects which are being transported from any point not within the state to another point not within the state, or from a point within the state to a point not

within the state or *vice versa*, is a regulation of interstate commerce and therefore prohibited (*State Freight Tax*, 15 Wall. 232).

Third. Taxes imposed upon the gross receipts of a corporation, where such receipts include receipts from interstate commerce as above defined, are justifiable only where the receipts taxed are not entirely derived from interstate commerce, and where the corporation is a domestic corporation, that is, a corporation of the taxing state. Where the receipts of a domestic corporation are not derived entirely from interstate commerce, its gross receipts may be made the measure of a tax, which is regarded as a tax upon its franchise. This franchise is considered by the courts as subject to the jurisdiction of the state, because it is granted by the state. (*Railway Gross Receipts Tax case*, 15 Wall. 284; *Philadelphia & Southern Steamship Co. vs. Pennsylvania*, 122 U. S. 326; *Fargo vs. Michigan*, 122 U. S. 326; *Ratterman vs. Western Union Telegraph Co.*, 127 U. S. 411; *Maine vs. Grand Trunk Railway Co.*, 142 U. S. 217).

These rules, effectively precluded the states from taxing the right to carry on interstate commerce, the objects of interstate commerce and the receipts from interstate commerce except in the one case that the corporation whose receipts were taxed was a domestic corporation and those receipts were derived only partially from interstate commerce. The states may therefore be said to have failed pretty nearly all along the line in their attempts to tax corporations engaged in interstate commerce, where the tax was attempted to be levied on that commerce. The states, however, were not daunted by this failure, but started on a new line about the year 1880.

In the great case of *McCullough vs. Maryland* (4 Wheat. 316), in which it was decided that the states could not tax the operations of an instrumentality of the United States government, Chief Justice Marshall had said :

" This opinion does not deprive the States of any resources which they originally possessed. It does not extend to a tax paid by the real property of the bank, in common with the other real property within the State, nor to a tax imposed on the interest which the citizens of Maryland may hold in this institution, in common with other property of the same description throughout the State. But this is a tax on the operations of an instrument employed by the government of the Union to carry its powers into execution. Such a tax must be unconstitutional."

When the transcontinental railway corporations resisted state taxation on their property on the ground that they were agencies of the United States government, the Supreme Court applied the exception made by Chief Justice Marshall and upheld the right of the states to levy these taxes. (*Thomson & Pacific Railroad Co.*, 9 Wall. 579; *Railroad Co. vs. Peniston* 18 Wall. 5).

In the meantime the states had gradually adopted the view that railway property was to be assessed as railway property and not as so much land, with the rails, ties and so on annexed to it. Such a method of assessment was upheld by the Supreme Court in the *State Railroad Tax cases* (92 U. S. 575). The states soon saw that if they could extend this principle somewhat they could arrive at the same result which they had tried to reach when they began the movement to which reference has been made.

One of the first important cases which upheld the states in their action was the *Western Union Telegraph Co. vs. Massachusetts* (125 U. S. 530), decided in 1887. Here it was held proper for the state to tax

that proportion of the valued capital stock of the company which the number of miles of telegraph line operated by such company in Massachusetts bore to the total number of miles operated by the company. This method was soon applied to other corporations doing an interstate business, particularly the railways (see the *C. C. C. & St. Louis R'y Co. vs. Backus*, 154 U. S. 439), and the express companies. The extreme point to which this unit of value theory, as it came to be called, was carried is seen in the *Express Company cases* (165 U. S. 194), decided in 1896. In these cases the only property possessed by the companies subject to the tax consisted of property similar to that possessed by ordinary citizens of the state, that is, horses, wagons, safes, pouches, office furniture and so on, but the Supreme Court, in a decision from which four of the nine judges dissented, held that this property might be given a value which was to be based almost exclusively upon the receipts which its use by the company secured, with the result that property of an actual taxable value, when considered apart from the business in which it was used, of less than \$70,000 was assessed at more than \$500,000.

The theory of the situs of the property, which must be within the state in order that the state might have jurisdiction to tax, was stretched in other cases almost as far as the power of the state to tax the property of the agents of interstate commerce was extended in the *Express Company cases*. This comes out most clearly in the *Pullman Company cases*. The Supreme Court had held under its theory of license taxes that a specific tax on the cars of a foreign corporation cannot be imposed for the privilege of engaging in interstate commerce (*Pickard vs. Pullman Southern Car Co.* 117

U. S. 34). The state of Pennsylvania, however, advanced the theory that while the specific cars of a foreign corporation cannot be said to be within the state where such cars are merely running through the state, at the same time, since there is always a certain number of cars within the state, the state may tax that proportion of the capital stock of the corporation which the miles run by the company's cars within the state bear to the total number of miles run by the cars in the country as a whole. This view received the approval of the Supreme Court. (*Pullman Palace Car Co. vs. Pennsylvania*, 141 U. S. 18).

We may say, therefore, *1st*, that the fact that a transportation company has, at all times, some property within a state, is sufficient to give such state jurisdiction for taxation, and, *2d*, that such property may be assessed, not as ordinary property, in the state, in accordance with its value as an item of such property, but as a part of a whole, whose value is determined by the receipts from operations of that whole, notwithstanding those operations are operations of interstate commerce. This is really the principle at the basis of the unit of value doctrine. It is not in accordance with the distinction made by Chief Justice Marshall in *McCullough vs. Maryland*, on which the right to tax the property of agencies of interstate commerce is based, and it results, however we may attempt to cloak it in fanciful distinctions, in a taxation of interstate commerce.

The question may well be asked, then, what advantages have been secured by this circuitous method of recognizing that the states may tax interstate commerce. It is certainly no less dangerous to the commercial unity of the United States which the Consti-

tution attempted to ensure, that the states should tax the value of the property of interstate corporations, estimated in terms of the receipts from interstate commerce, than that they should tax the receipts themselves, or even the objects of interstate commerce. Why is it that the Supreme Court has thus practically reversed its policy? Why, but because, as Chief Justice Taney intimated in his opinion in the *Passenger cases* already referred to, the restriction of the power of the states, as it has been interpreted, has too seriously impaired "the powers of taxation which have heretofore been exercised by the states."

This fear that the taxing power of the states would be too greatly impaired has been voiced by many of the judges, but they have been led to adopt the principles which they have enunciated, by the fear that if they recognized the power to tax interstate commerce as belonging to the states, it could be made use of to destroy our commercial unity. For the power to tax is the power to destroy, as Chief Justice Marshall said in *McCullough vs. Maryland*. This fear has been expressed many times. Thus in the *State Freight Tax cases* (15 Wall. 232), Mr. Justice Strong says :

"The legislature of Pennsylvania has in effect declared that every ton of freight taken up within the State and carried out, or taken up in other States and brought within her limits, shall pay a specified tax. The payment of that tax is a condition, upon which is made dependent the prosecution of this branch of commerce. And as there is no limit to the rate of taxation she may impose, if she can tax at all, it is obvious the condition may be made so onerous that an interchange of commodities with other States would be rendered impossible. . . . It is of national importance that over that subject (that is, interstate commerce) there should be but one regulating power, for if one state can directly tax persons or property passing through it, or tax them indirectly by levying a tax upon their transportation, every other may, and thus commercial intercourse between States remote from each other may be destroyed. The produce of Western States may thus be effectually excluded from Eastern markets, for though it

might bear the imposition of a single tax, it would be crushed under the load of many. It was to guard against the possibility of such commercial embarrassments, no doubt, that the power of regulating commerce among the States was conferred upon the Federal government."

Again, in the case of *Welton vs. Missouri*, (91 U. S. 275), Mr. Justice Field says :

"The power of the state to exact a license tax of any amount being admitted, no authority would remain in the United States or in this court, to control its action, however unreasonable or oppressive."

Is there now no way of reconciling these two desiderata, that is, an ample taxing power in the states and an absolutely secure commercial unity for the entire country? Certainly the present solution of the question does not ensure such a unity, for the states may at any time they see fit increase their exactions, and unless the Supreme Court changes its rule, no Federal authority can intervene to protect interstate commerce. If, on the other hand, the Supreme Court does change its rule, while our commercial unity will be protected the taxing power of the states will be too greatly impaired. The mere statement of the question would seem to suggest its answer. This is the recognition of a right on the part of the states to tax interstate commerce, the exercise of which should be limited by Congress. Is, now, such a solution of the question constitutional? At first blush one is apt to say "no," but a further investigation of the subject is calculated, it is believed, to cause doubts to arise as to whether "no" is the right answer. It is to be noticed that the states are not expressly forbidden by the Constitution to regulate or tax interstate commerce, as they are expressly forbidden to levy taxes on imports or exports. Therefore, the taxation of interstate commerce by the states is improper only so far as it is within the state regulation of such commerce, which

is forbidden by the Supreme Court in its interpretation of the commerce clause of the Constitution. But we have seen that state regulation of such commerce is forbidden, except as to such local matters as pilot regulation, and that taxation is regulation. Must we, then, conclude that state taxation of interstate commerce is, in all cases, improper?

Not if we bear in mind the old maxim of the law which says that when the reason for a rule ceases the rule itself ceases. What, now, is the reason for the rule that state taxation is regulation? Is it not, as has already been intimated, that the power to tax is not subject to judicial limitation, but, if recognized, may be exercised to any extent? This is what the Supreme Court has said on several occasions. If, now, we can find a method by means of which the exercise of this power by the states can be limited by Congress, is it not natural to suppose that the objections of the Supreme Court to state taxation of interstate commerce will be removed? Several constitutional objections to such a solution of the question at once present themselves. It will be said that if the states possess the power, Congress has no constitutional authority to limit their exercise of it, and on the other hand, that if the states do not possess the power Congress may not delegate it to them. Is it, however, necessary to concede that congressional limitation of state taxation is either a limitation of the power of the states to tax or a delegation to the states of a power which they otherwise would not possess? The attempt will be made to show that an act of Congress could be framed which would not be open to either of these objections.

Suppose Congress should frame an act which should provide a method of state taxation of interstate com-

merce, to go into effect in any state if that state should adopt the act of Congress. Such an act might be justified on either one of two theories ; first, the adoption by Congress of a state law ; second, the passage of legislation by Congress to take effect on the happening of a future event. Let us see now whether either or both of these methods has received the approval of the Supreme Court.

The first case decided by that body which has a bearing on the theory that Congress may adopt a state law is the case of *Cooley vs. Port Wardens*, already referred to. The opinion in this case would seem to show, however, that the Supreme Court has repudiated the idea that Congress can provide for the adoption by it of legislation to be passed in the future by the states. In order to uphold the state statute the court was driven to take the position that the power to regulate commerce is exclusive in Congress only as to subjects which are "in their nature national or admit only of one uniform system or plan of regulation," and that as to local matters the states may act until Congress acts. At the same time it is to be remembered that the court did not declare the act of Congress unconstitutional and also upheld the law of the state passed after the act of Congress. A careful search through the reports has revealed no other decision on this point until we come to the year 1890, when the case of *In re Rahrer* (140 U. S. 545) came before the court. This case brought up for consideration an act of Congress known as the Wilson Bill. This provided

"That all fermented, distilled or other intoxicating liquors transported into any state or territory, or remaining therein for use, consumption, sale, or storage therein, shall, upon arrival in such state or territory, be subject to the operation and effect of the laws of such state or territory, enacted in the exercise of its police powers, to

the same extent and in the same manner as though such liquors or liquids had been produced in such state or territory, and shall not be exempt therefrom by reason of being introduced therein in original packages or otherwise."

The purpose of this bill was to overcome the effect of the decision of the Supreme Court in the case of *Leisy vs. Hardin* (135 U. S. 100), which had held that liquors in the original package in the hands of the person bringing them into the state would not be subject to the police power of the state. The court upheld the law of Congress and affirmed the conviction of a person selling liquor in the original package which he had brought from another state, contrary to the law of the state of Kansas. In the course of the opinion Mr. Chief Justice Fuller denies that such an act is a delegation of power to the state, saying,

"Congress did not use terms of permission to the state to act, but simply removed an impediment to the enforcement of the state laws in respect to imported packages in their original condition, created by the absence of a specific utterance on its part. It imparted no power to the state not then possessed, but allowed imported property to fall at once upon arrival within the local jurisdiction."

Again he says :

"No reason is perceived why, if Congress chooses to provide that certain designated subjects of interstate commerce shall be governed by a rule which divests them of that character at an earlier period of time than would otherwise be the case, it is not within its competency to do so.

"The differences of opinion which have existed in this tribunal in many leading cases upon this subject, have arisen, not from a denial of the power of Congress, when exercised, but upon the question whether the inaction of Congress was in itself equivalent to the affirmative interposition of a bar to the operation of an undisputed power possessed by the states.

"We recall no decision giving color to the idea that when Congress acted its action would be less potent than when it kept silent.

"The framers of the Constitution never intended that the legislative power of the nation should find itself incapable of disposing of a subject matter specifically committed to its charge. The manner of that disposition brought into determination upon this record involves no ground for adjudging the act of Congress inoperative and void."

Three Justices, namely, Harlan, Gray and Brewer did not, indeed, concur in all the reasoning of the opinion of the court, but they wrote no dissenting opinion. The decision was therefore a unanimous decision of the court.

It is true that the act of Congress considered in this case was passed after the law of Kansas was adopted, but this fact is made no account of by the Supreme Court, which bases its decision upon general principles. It may, therefore, be said that there is ground for believing that Congress has the power in certain cases to adopt either existing or future state legislation as its own.

But even if it is not believed that the decisions referred to go to the extent of recognizing the power of Congress to adopt future state legislation, the acceptance of such a principle is not necessary to the validity of the plan for Congressional action, which has been proposed. For what this plan involves is the preparation of a complete system of taxation by Congress, which shall take effect in a particular state on the adoption of it by such state. Such a power is clearly distinguished by the Supreme Court from the power of delegating functions of government. Thus, it has been decided in the case of *Field vs. Clark* (143 U. S. 649), which upheld the reciprocity provision of the Tariff act of 1890, that Congress might give to the President the power, in given conditions, the existence of which he was to determine, to strike articles from the free list, provided by the tariff, in which case certain rates of duty provided for as well in the act of Congress, were to be levied. The Supreme Court held that this was not a delegation of legislative power by Congress to the President and was perfectly constitutional. Such also has been the effect of the decisions in many of the state courts relative to

the constitutionality of various local option laws, adopted by many of the states, which make the going into effect of a law prohibiting the sale of liquor in a particular locality dependent upon the vote of the people of that locality.

What difference is there then between providing for the going into effect under special conditions, to be determined by the President, and providing for the going into effect in a particular state of a law of Congress, in case the state legislature shall come to the determination that the going into effect of such a law is expedient. Of course such a law would be improper relative to foreign commerce, for the states are expressly forbidden to impose duties upon exports or imports. But in the case of interstate commerce, all the Constitution says is that Congress shall have power to regulate, and such action of Congress as has been proposed would not cease to be regulation by Congress because it was provided that it should go into effect in any state only when such state should decide to put it into effect.

In addition to the decisions mentioned, there are a number of other decisions which have upheld acts of Congress similar to the one proposed. Thus, soon after the establishment of the national banking system, it was provided by Congress that the shares of the national banks might be taxed by the states in the hands of shareholders, as personal property, subject to specific limitations. It was objected to this that it was an attempt on the part of Congress to delegate power to the states, but the Supreme Court held (*Van Allen vs. Assessors*, 3 Wall. 573) that the act of Congress was not a delegation of legislative power to the states. The opinion upholds this legislation, it is true, on the theory on which pilot regulations by the states have been upheld.

The fact remains, however, that the Supreme Court, in the case mentioned, upheld an act of Congress which went into force in a state only as a result of action on the part of the state. (See also *Tappan vs. Merchants Bank*, 19 Wall. 490).

Another similar instance of an act of Congress controlling the legislation of the states is to be found in the United States Revised Statutes, which, as interpreted by the Supreme Court, fixed the situs for purposes of state taxation of vessels registered with the United States. The Supreme Court has held that the situs of this class of property is the home port and that the states may not change it. (See *Hays vs. Pacific Mail S. S. Co.* 17 How. 596; *Morgan vs. Parham*, 16 Wall. 471).

It will thus be seen that an act of Congress which should provide a system of state taxation of interstate commerce to go into effect in any state in case of affirmative action on the part of such state would have considerable precedent in favor of its constitutionality.

The only remaining question to be asked is, would Congress have the power to prevent the states from adopting some other system than the one provided? This question is one of more difficulty. Unless the Supreme Court abandons the unit of value rule, it is hardly conceivable that Congress could prevent the states from taxing these interstate commerce corporations according to that theory. But it is to be remembered that this rule was adopted by a divided court. In the *Express Company cases*, in which the extreme position of the court was taken, four of the nine judges dissented on the ground that the tax imposed was really on interstate commerce. There is reason to expect, therefore, that

the Supreme Court may modify, if not reverse, its decision. If it does and adopts the rule that taxation by the state of property belonging to corporations engaged in interstate commerce is the taxation of interstate commerce, where the value of such property for the purposes of taxation is reached from a consideration of the receipts obtained from its use as an instrument of interstate commerce, the answer to the question which has been put will be much easier. Indeed, we already have a number of decisions which indicate the probable attitude which the Supreme Court would take. In the *Bank Tax cases*, already cited, that body held an act of the state of New York imposing a tax on national bank shares invalid because it did not provide that such shares should be taxed at the same rate as other moneyed capital, as required by the act of Congress authorizing the states to tax such shares. Besides this case, there are a number of cases preventing states from assessing such shares at a higher ratio of their true value than other personal property on the same roll (*Pelton vs. Bank*, 101 U. S. 143), or from refusing to the individual holder of such shares the right to deduct his debts from the assessment on his shares, where this privilege was given to the holders of other personal property liable to taxation (*Boyer vs. Boyer*, 113 U. S. 689.)

Finally, in a very recent case (*Owensboro National Bank vs. Owensboro*, 173 U. S. 664), decided in 1898, the Supreme Court has held that the states may not tax national banks except in the way provided by Congress. Mr. Justice White says:

"The tax then, as defined in the law, as interpreted by the Court of Appeals of Kentucky, and by this court in the opinions from which we have excerpted, is a tax nominally on the franchise of the corporation, but in reality a tax on all the intangible property of the corporation. The proposition then comes to this: Nothing but the shares of stock in the hands of shareholders of a national bank can be taxed,

except the real estate of the bank. The taxes which are here resisted are not taxes levied upon the shares of stock in the names of the shareholders, but are taxes levied on the franchise or intangible property of the corporation. Thus, bringing the two conclusions together, there would seem to be no escape in reason from the proposition that the taxing law of the State of Kentucky is beyond the authority conferred by the act of Congress, and is therefore void for repugnancy to such act."

Again he says :

"It follows then necessarily from these conclusions that the respective states would be wholly without power to levy any tax, either direct or indirect, upon the national banks, their property, assets or franchises, were it not for the permissive legislation of Congress. . . . This section, then, of the Revised Statutes is the measure of the power of a state to tax national banks, their property or their franchises. . . . Any state tax, therefore, which is in excess of and not in conformity to these requirements is void."

It will be observed that in this case the Supreme Court abandons (there is no dissent from the judgment or opinion) the position taken in the *Bank Tax* cases, that the power to tax national banks is concurrent, but definitely puts itself on the ground that the states have no power to tax national banks in any way unless authorized by Congress, and that if they tax such institutions they must tax them in the way, and only in the way so authorized. In another and earlier case (*Mercantile National Bank vs. Mayor*, 121 U. S. 138), decided in 1886, the Supreme Court gives its conception of the reasons which actuated Congress in passing the act permitting the taxation of national banks. Mr. Justice Matthews says :

"The key to the proper interpretation of the act of Congress is its policy and purpose. The object of the law was to establish a system of national banking institutions, in order to provide a uniform and secure currency for the people and to facilitate the operations of the Treasury of the United States. The capital of each of the banks in this system was to be furnished entirely by private individuals ; but, for the protection of the government and the people, it was required that this capital, so far as it was the security for its circulating notes, should be invested in the bonds of the United States. These bonds were not subjects of taxation ; and neither the banks themselves, nor

their capital, however invested, nor the shares of stock therein held by individuals, could be taxed by the states in which they were located without the consent of Congress, being exempted from the power of the states in this respect, because these banks were means and agencies established by Congress in execution of the powers of the government of the United States. It was deemed consistent, however, with these national uses, and otherwise expedient, to grant to the states the authority to tax them within the limits of a rule prescribed by the law. In fixing those limits it became necessary to prohibit the states from imposing such a burden as would prevent the capital of individuals from freely seeking investment in institutions which it was the express object of the law to establish and promote. The business of banking, including all the operations which distinguish it might be carried on under state laws, either by corporations or by private persons, and capital in the form of money might be invested and employed by individual citizens in many single and separate operations forming substantial parts of the business of banking. A tax upon the money of individuals, invested in the form of stock in national banks, would diminish their value as an investment and drive the capital so invested from this employment, if at the same time similar investments and similar employments under the authority of state laws were exempt from an equal burden. The main purpose, therefore, of Congress, in fixing limits to state taxation on investments in the shares of national banks, was to render it impossible for the state, in levying such a tax, to create and foster an unequal and unfriendly competition, by favoring institutions and investments of a similar character. The language of the act of Congress is to be read in the light of this policy."

What rules of law now are we to gather from this rather tedious collection of excerpts from the decisions, as to the power of Congress to authorize the states to levy taxes on interstate commerce according to some system which it itself provides?

We may say, *1st*, that the Constitution itself does not expressly forbid the states to tax interstate commerce but merely confides its regulation to Congress, *2nd*, recognizing that the power of Congress is exclusive and that the inaction of Congress is the expression of its will that there shall be no regulation, and therefore, no taxation of interstate commerce, we must admit at the same time that Congress may regulate it and thereby provide for its taxation by formulating a system which

is to go into effect in case of affirmative action by the states, and 3rd, that if the Supreme Court reverses or seriously modifies the unit of value rule, which it has laid down, particularly in the *Express Company cases*, Congress may not only authorize the states in this way to tax interstate commerce, but also may prevent their imposing taxes on what is really interstate commerce in any other way than the one authorized.

If this is the law, the way is really open for a comparatively uniform method of state taxation of interstate commerce throughout the United States. It may perhaps be inexpedient for the states that such a plan be adopted. It may be that through the tax on the gross receipts of domestic corporations, where such receipts are derived only partially from interstate commerce and the tax on the property of all other corporations, assessed according to the unit of value rule, the states may be able to secure all the revenue they desired, and that such taxes satisfy the standards adopted by those expert in the economics of taxation. If that be the case, what has been said is naturally rather flat, stale and unprofitable. If, on the other hand, existing conditions are not satisfactory from the point of view of state revenue or from that of the commercial unity of the country or from the point of view of the economics of taxation, it behooves those interested in securing a scientific adjustment of these rather complex relations to bestir themselves and secure from Congress an act which will secure the desired result.

It has been the purpose of this paper, however imperfectly fulfilled, to point the way in which this may be done and to state the reasons for the belief that this way is not contrary to the provisions of the United States Constitution.

STATE TAXATION OF INTERSTATE COM- MERCE—DISCUSSION¹

FREDERICK NEWTON JUDSON: In the discussion of this subject we should carefully distinguish between the taxation of interstate commerce and the taxation of the property employed in that commerce. This distinction is perhaps more important in the legal and constitutional, than in the economic and practical, sense; but it has been repeatedly declared by our Supreme Court as necessarily involved in the exercise of this sovereign power of taxation under our dual form of government. Thus the states cannot tax interstate commerce as such, that is, they cannot tax the privilege of carrying on interstate commerce, they cannot exact licenses from interstate railroad or telegraph or telephone companies, nor from traveling salesmen, nor can they tax property actually in commercial transit.

But the state's right to tax all property, tangible and intangible, which is located within its jurisdiction is inherent in its sovereignty, and it is difficult to see how this right which is thus inherent in a sovereign state can be abridged or limited by Congress under our present constitutional limitations of federal authority. The so-called unit and mileage rules, discussed in the *Express cases* and elsewhere, are in a legal sense simply methods held admissible for determining the actual value of inter-

¹ It has been impossible to secure the full text of Professor W. M. Daniels' discussion of Professor Goodnow's paper. He (1) controverted the proposition that state taxation of interstate commerce under the unit of value rule endangers interstate commerce; (2) denied that the withdrawal from the states of the revenue now obtained by that method of taxation would cripple them financially; and (3) contended for a uniform federal tax on interstate commerce chiefly for purposes of regulation rather than for revenue.

state property located within the state's jurisdiction. The enforcement of this right of the state to tax the property employed in interstate commerce in a practical sense may involve the taxation of interstate commerce. Thus the taxation of the property of a telegraph company according to its mileage of poles in the state is practically a tax upon the company and a charge upon its revenues, as much as a license upon its right to conduct an office for interstate business. But the distinction exists in a legal sense, though it may not in a practical sense. The states cannot tax the privilege, but they can tax the property employed in the exercise of the privilege.

The authority of Congress as suggested in the interesting and thoughtful paper of Professor Goodnow would seem to be limited to the regulation of the taxation by the states of interstate commerce. Assuming, as suggested by Professor Goodnow, that Congress in regulating interstate commerce could lay down a rule for taxing that commerce by the states, would not its effect be to increase the taxing power of the states, because it would give them, under such a regulation, the power of taxing where now they cannot tax at all, while their power to tax property located in their jurisdiction, including that employed in interstate commerce, would remain the same as before? In other words, the change proposed, as it seems to me, would only be effectual in extending the taxing power of the states under this national authority to the privilege of taxing the privilege of carrying on interstate commerce, which is now denied to the states. Thus taking a concrete illustration. The states now cannot exact licenses, as from a telegraph company, for the privilege of carrying on interstate commerce. Congress might extend to them this

right under national regulation, but it could not control them in the right which they now have as sovereign states to tax the property of the telegraph company located within the state.

I do not agree, as suggested in the paper that under the application of the state's authority to tax the property employed in commerce under the unit and mileage rules for ascertaining the valuation of that property, that no federal authority can intervene to protect interstate commerce. The federal authority can always be invoked to prevent the states from taxing interstate commerce under the guise of taxing property employed in the commerce. The line may oftentimes be difficult to draw, but it exists none the less. Furthermore, under the fourteenth amendment the states can only tax such property according to the valuation, and at the rate that other property of the same class in the state is taxed. This federal power to restrain the possible abuse in the exercise of the state's sovereign power of taxation, guaranteeing the equal protection of the laws, is really the "sleeping giant" of the Constitution.

As the practical effect of the proposed change would be the extension of the taxing power of the state over interstate commerce, and not in the regulation of any existing power, I doubt very much whether such an end is desirable. It would seem that the states now have all the taxing power in relation to interstate commerce which they ought to have in view of their power to tax the property, tangible and intangible, which is located in their jurisdiction employed in that commerce. Is it not better that interstate commerce, that is the privilege of carrying on such commerce, should remain free from state taxation, rather than that it should be taxed by states under the regulation of Congress, as any in-

creased power of state taxation would be an additional burden upon such commerce?

The scientific adjustment of the complex problems involved in the exercise of this sovereign power by dual sovereignties in the same territory is no doubt desirable, but I fear that it cannot be secured by the remedy proposed. The most serious practical difficulty, which the federal power cannot control, is in the duplicate taxation which grows out of the subjection of the same property to the taxing power of two jurisdictions, and this can only be remedied by interstate comity based upon a supporting public opinion. But this is a question of moral and political honesty, rather than of economics.

CARL C. PLEHN: I hesitate to criticise Professor Goodnow's paper for two reasons. The first is the respect which I entertain for his well tested knowledge of American constitutional law, which would lead me to fear pitting my opinion against his on a disputed point on that subject. I may be permitted to say, however, that so far as my comparatively limited investigation has gone, I am of the opinion that the view he has presented is correct. If Congress should prescribe the methods by which alone the states might tax corporations engaged in interstate commerce, the Supreme Court would probably refuse sanction to any other method. Such a conclusion seems unavoidable from the past decisions with reference to the taxation of national banks.

The second reason why I hesitate to criticise the paper is that it falls distinctly in the line of my hopes, and, I trust, in line with those of all who are sincerely working for the reform of our American system of state taxation. It offers a feasible solution of the vexed prob-

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lems of uniformity in taxation, so far as corporations are concerned, whether the corporations be interstate or other. Economists have long defended the right of prescription as of the highest utility because of the certainty which it infuses into economic dealings. The most universally accepted, practically uncriticised, canon of taxation is that of *certainty*. If it be true that certainty as to just treatment, is valuable to corporate wealth, as it is to public welfare, then any method which promises this treatment is to be hailed with joy. This assumes that Congress will be more likely to deal justly, broadly and liberally with corporations doing an interstate business than would the state legislatures. That this is the case, I think, needs no argument.

In Professor Seligman's testimony before the Industrial Commission, he suggested that Congress should authorize the federal government to collect the taxes from interstate corporations and apportion them among the states. This obviously encounters a multitude of constitutional and political difficulties. But Professor Goodnow's paper suggests that all, and more, that Professor Seligman hoped to accomplish can be attained by a simpler method. All the states are seeking to remedy some of the most glaring faults of the general property tax, and most generally by supplementing it by corporation taxes. To suggest a method by which they may all be whipped into line and do the same thing and the just thing is a noble service and I congratulate Professor Goodnow on being so fortunate as to make that suggestion.

TRUSTS

HENRY C. ADAMS

A trust may be defined as an industry which, on account of its size or of its form of organization, exercises a dominating influence on the production or the sale of the goods in which it deals. This definition renders two important services. It draws a clear line between a great industry and a trust organization of a great industry, and it provides a test for determining what industries have attained the trust organization.

Four lines of argument may be found in current discussion designed to reconcile us with the existence of exclusive industries. The first is that trusts are the result of natural law and are a healthful industrial evolution; the second is that the economic law of competition persists, no matter what the form of industrial organization; the third is that trusts are productive and should receive our approval for the same reason that we grant approval to a labor-saving machine; and the fourth is that common law principles already provide adequate remedy for any conceivable abuse of the liberty of contract. Let us give a moment's consideration to each of these lines of argument.

I. TRUSTS ARE THE RESULT OF NATURAL LAW

The organization of competing corporations into a single all-embracing business enterprise is regarded by the first class of trust apologists as a normal step in industrial evolution. Upon this point Professor Gunton expresses himself as follows: "One of the marked features of the economic development of the century is the radical change that has taken place in the character

of competing units. Under the primitive hand labor method the competing unit was the individual. With the development of factory methods the individual, as a competing unit, was superseded by partnerships, because they could more economically employ the new methods. With the growth of invention, partnerships were superseded by corporations. With the growing completeness of machinery and magnitude of business, corporations grew larger and larger, until the corporation is now the prevailing form in the most advanced countries. . . . In short, the progress during the nineteenth century has irrevocably established the group as the competing unit; the union as the unit on the labor side, the corporation¹ as the unit on the capital side." The trust is characterized by Professor Gunton as the successful experiment of many recent experiments in the evolution of the industrial unit.

So far as history is concerned nothing can be said in criticism of the above statement, except that it tells but half a truth. It overlooks the essential point that with every step in the modification of the business unit it has been found necessary to prescribe new legal conditions for the direction and control of industry. Every close student of political economy knows that the doctrine of competition, as foreshadowed by Locke, and Hume, and as expressed by Adam Smith, was formulated for a society which rested on tools, and that the introduction of the factory system necessitated a modification in the statement of the laws of competition and

¹ I am obliged to assume that by this phrase "the corporation" Professor Gunton means the trust corporation which results from the organization of previously competing corporations into the gigantic corporation. He cannot mean simply the corporation as a form of industrial organization, inasmuch as such an interpretation would limit his historical reference to the middle of the nineteenth century.

of the statutory conditions under which factories were permitted to operate. He is also familiar with the further fact that the appearance of the private corporation about 1840, which by 1870 had become a prevalent type of industrial organization, necessitated a second reorganization of the law of competition, and was the direct occasion of enactments designed to guard the public from threatened evils. The natural conclusion from this appeal to history, when the full story is told, is not that trusts are a sacred product of natural evolution, superior to statutory control, but rather because they are a new form of industrial organization, that they should be met by a new expression of the law of competition and by a new statement of statutory rights and duties. He is a superficial thinker who sees in this appeal to history a reason why trusts should be permitted an uncontrolled development. In any comprehensive view of society the institution of the state, which rests on coercion, is as natural as the institution of commerce which rests on voluntary association, and as such has an equal right in logic to claim whatever presumption lies in the theory of evolution or in the doctrine of natural law.

II. IS TRUST COMPETITION EFFECTIVE COMPETITION?

We come now to a consideration of those publicists who assert that competition persists as a controlling force in industry notwithstanding the consolidation of competing companies into a single organization. "Competition," says one of our leading sociologists, "disappears in one form only to reappear in another." This is an eminently sane and just observation and one that no economist would care to deny. It is incumbent upon us, therefore, to inquire what the new form of competi-

tion is by which this new manifestation of industrial power is to be controlled, and to ask if it is competent for the task of control.

This class of ideas presents itself under two forms, namely, the claim that competition exists between commodities offered for sale, and the claim (or possibly merely the implication) that we may safely rely upon the substitution of potential competition for active competition.

The logic of that apology for trusts which rests upon the claim that competition of goods will persist notwithstanding the trust organization of industry, may be suggested by the following concrete illustration. If the manufacture of shoes be monopolized, and the monopolist charge too high a price for shoes, while the manufacturer of bonnets, with a keener insight into the psychology of the purchaser, places the price of bonnets on a relatively lower plane, the ladies of the country will choose to go barefoot and spend more in bonnets. This will curtail the sales of the shoe monopolist, and he will, as a result, reduce the price of shoes. Possibly Professor Giddings' statement of the argument may be preferred. He says: "When one group of producers demands unusually high prices, all other groups of producers can very considerably increase their sales in virtue of that law of human nature according to which men can and do, to a great extent, substitute one group of conveniences and pleasures for another, postpone certain enjoyments for the time, and distribute their expenditures at all times in such a way as to obtain the greatest satisfaction for a given outlay."

This expression of the competitive principle is universally conceded, but before one accepts it as a satis-

factory apology for trusts, there are two observations to which attention should be called.

In the first place, it should be observed that the full limit of the influence of competition among monopolists for their respective shares of the people's income, is to guard the consumer against flagrant abuse of monopolistic power, and this, I submit, is a poor substitute for that phase of competition by which the public is guaranteed that the price of goods will not exceed their cost. The restraining influence of the fact that if prices are too high sales will be curtailed, is a familiar line of reasoning, but Professor Giddings is the first writer, so far as I am aware, to imply that this phase of competition would grant the same protection as would be granted by free competition between independent producers. The latter phase of competition is a guarantee that the market price will not permanently stand above the cost of the goods; the former is merely a guarantee that the market price of goods produced by monopolists will not be so high as to defeat profitable sale.

My second observation is, should this phase of competition prove to be a real check upon the profits of centralized industries, the same considerations which lead to the consolidation of independent producers in the same line would lead to a consolidation of monopolistic competitors in all lines. But this is so bizarre an idea that I will not claim your time for its discussion.

What now shall we say of the suggestion that, active competition having been suppressed, the public may still place reliance upon potential competition as a guarantee of fair treatment on the part of monopolists? This I understand to be the position held by Professor Clark. By the side of this consideration there should be placed also the suggestion of Professor Jenks that ex-

perience on the part of trust managers will induce them to become more and more conservative in the use they make of their monopolistic power. He, too, like Professor Clark, relies upon the claim that the abuse of power invites competition.

I have no desire to deny that potential competition exists, nor that it is capable of exerting a certain degree of influence upon the manner in which a monopoly is administered. That, however, is not the question. The point at issue is whether the public is justified in placing sole reliance upon potential competition, active competition having disappeared with the disappearance of the actively independent producer.

I confess it seems to me that the statement of such a proposition carries with it its own refutation. The establishment of a new commercial enterprise is by no means an easy task. In the first place, considerable time must elapse between the beginning of an investment and the completion of the plant, and the capital invested must either forfeit its earnings during this period, or more capital must be borrowed and charged to cost, with which to pay dividends on outstanding stock. In the second place, the investor must take into consideration the necessary loss incident to mistakes due to inexperience. A successful manager cannot be found every day and we may be sure that the best talent is in the service of industries already organized. In the third place, the building of a factory is not the building of a business, the most difficult part of establishing a new industry consists in securing an assured market. And finally, the power of the trust over the avenues of sale are so secure, that free capital and free labor will hesitate a long time before venturing to enter into active competition. All this means a very considerable margin

of excessive profit before latent competition can be brought into play.

This class of facts is as well known to the management of the trust as to those who are seeking investment for free capital. Is it not evident, therefore, that the administrators of a trust will calculate upon this barrier against the inroad of competition and adjust prices accordingly? The interests of a trust are not placed in the hands of fools or of cowards, and, in view of the many difficulties incident to the establishment of new industries, are we not justified in saying that potential competition can not go farther than to obviate the most flagrant abuse of power. The American people have been taught that the fair price is the cost price. For a century they have proceeded upon the assumption that active competition is necessary to guarantee this fair price, and, in view of the manifest inequalities in the strategic position occupied by a monopoly already established, and by a competing concern to be established, it is doubtful if any amount of argument can induce them to rest satisfied with potential competition.

III. ARE TRUSTS PRODUCTIVE?

There is another class of writers who rest their apology for trusts upon the claim that organization is a productive principle and that trusts, which represent the application of this principle to manufactures, are bona fide producers. This means that the consolidation of competing industries is a step in industrial betterment the same in kind, and to be followed by the same advantages, as the substitution of machinery for tools, or the introduction of any method or process by which, for a given amount of labor, a relatively larger amount of wealth

may be produced. We can not accept the fact that men have found it advantageous to consolidate competing industries as proof that such consolidations are productive, for such a conclusion overlooks the distinction between product and profit. It is conceivable that a highly centralized industry may increase profit to the corporation while contributing nothing to the product of the nation; and it may be that a desire to obtain the former rather than to promote the latter lies back of trust organization. It is consequently, pertinent to inquire whether or not the trust is truly productive.

There is nothing mysterious about the process of production. It consists in the application of labor to the making of useful goods or the rendering of useful service. It includes agriculture, the object of which is to secure possession of raw material; it includes manufacture, which consists in fashioning material to meet the needs of consumption; it includes commerce, which consists in the transportation of material and product to the consumer. Modern refinements of economic theory respecting value have not seriously modified this fundamental structural description of what constitutes industry. If, now, it be true that the amalgamation of independent competitors constitutes a productive process, that productivity must show itself in one of the three lines of activity described. Under no other assumption is it reasonable to say that the trust organization is productive in the sense that the invention of a labor saving machine is productive.

So far as that phase of commerce which has to do with transportation is concerned, it is admitted that the size of plant and density of traffic are a rough measure of productive ability. Can the same be said of the pro-

cess of manufacture? Is it like railways, subject to the law of increasing returns? Consider what is implied in such a concession. If this be true there is no assignable limit to the profitable size of a manufacturing plant. If this be true, the principle of monopoly inheres in the manufacturing industry. If this be true there is the same reason why government should interfere in the manufacturing industry as there is why government should undertake the control of railways. While admitting that these considerations open up a field of economic theory as yet but partially explored, I confess I am unable to grant such conclusions. To me, it seems clear that the process of manufacture is subject to the law of constant returns and that, on this account, the thought of monopoly is foreign to its nature. Both analysis and experience make evident the fact that beyond a certain point, increase in the size of a manufacturing plant does not contribute to economy. The growth of the typical industry during the past century and a half should cast no doubt upon this conclusion, for this growth, so far as it inheres in the nature of the manufacturing processes, is primarily the result of new inventions and of new applications of the principle of division of labor. If, now, the only normal motive for increasing the size of manufacturing industries be to make room for a new invention, it is evident that, at any particular time in the development of commercial arts, there is for every branch of manufacture a size which enables the full realization of the principle of division of labor. This may be termed the size of maximum productivity, and provided a manufacturer has sufficient capital to enable him to own a plant of this maximum size, he can easily hold his own in the world of competition. Indeed, an increase in size beyond this point,

unless it be a complete duplication of the plant, will result in a decrease of efficiency, for it introduces confusion into what before was a perfected application of the principle of division of labor.

The converse of this is also true. If a manufacturer fails to increase his capital to the size required for the most effective use of machinery, he will be forced to the wall, a fact which suggests the observation that, not only are trusts in themselves unproductive, but they will, if they gain control of the industrial field, tend to check development in the technique of industry. It does not lie within the purely commercial motive to force a monopolist to adopt the latest and most effective mechanical devices. On the contrary, the monopolist waits upon the wear of old machinery before adopting improved methods. If you ask what is the fundamental explanation of the tendency towards the consolidation of manufacturing plants, I reply, it is the desire on the part of the proprietors of inferior plants to shield their capital from the competition of more perfect methods of production. The man with a poor plant sets the ball rolling by offering goods at cut-throat prices, for he has little to lose and much, possibly, to gain; the man with the best plant, seeing the advantage due him from his enterprise threatened by this predatory competition, tries first to club his free booter rival into submission, and if he fails in this, takes him into partnership. This is the way in which trusts grow. The initial motive is to secure an income from poor capital. The final result of organizing industry in response to this motive will be to check enterprise. Just at present, while the process of consolidation is going on, and while the vision of a world's market is before the American manufacturer, it may be

that trusts tend to render general the best methods of production; but the end is not yet. Monopoly is now what it always has been. The only means of perpetuating itself is by stifling energy and limiting progress. In response then, to the inquiry respecting the productivity of trusts, there seems but one answer. Confining the question to the process of manufacturing, not only does the amalgamation of independent producers into a single industrial organization contribute nothing to the cheapness of the process of manufacture, but allowed its normal development it will, to speak mildly, tend to dampen the ardor for improvement, and thus bring us to the beginning of the end of the "industrial revolution."

It may be urged that I overlook the savings incident to great organizations. No, I do not overlook the possibility of savings. Savings incident to great industries are of two kinds: first, the production of by-products in sufficient quantities to make their collection and preparation for the market profitable, and second, the avoidance of unnecessary expense in the administration of the business and in the sale of the product.

So far as by-products are concerned, provision has already been made for them in the statement that the normal size of a productive industry tends to increase with every improved appliance or perfected process. The discovery of a new by-product may necessitate an increase in the size of the plant, but the increase thus necessitated, is limited to the size required for collecting these products in profitable amounts. In order, therefore, to introduce the saving of by-products into an argument for the support of an organization of the country's industries in which each product is represented by a single producer, it would be necessary to

show that nothing less than 75,000,000 of consumers would furnish a market sufficiently extended to warrant an industry of the size required by maximum efficiency. Such an assumption is absurd, and doubly absurd when to the home market of 75,000,000 of consumers we add the world's market. Large industries may be necessary to enable the savings of by-products, but not a trust of large industries.

With regard to savings in administration through consolidation, I confess I am somewhat skeptical. It is true that the number of presidents may be decreased, but what shall we say of the salaries of those that remain? It is true that expenditure for advertising may be reduced and the payroll of travelling salesmen curtailed; but we are entirely in the dark as to the extent of this saving. In the absence of information we are obliged to go back to analysis and to rely on fundamental principles. If the manufacturing industry can be organized like an army, if the decision of the management in one case may be generalized into a universal order, if, in short, the process of making and selling goods is a process *en gross*, like transportation, and not a process that commands at every step the personal attention of trained intelligence, then we might talk of savings in administration incident to consolidation. But such is not the character of the manufacturing industry. The nature of the manufacturing process does not permit of such savings at least to the extent that it becomes a controlling consideration in the organization of the business. Moreover, these arguments do not fit well together. Laborers, we are told, are to get more for their work, investors are to get more on their capital, and, so far as we can learn, the salary list of officers is not greatly decreased. Where, then, in view of the fact

that the inevitable tendency of monopoly is to stifle invention, is there any saving that the public is able to see. There remains only advertising and travelling men, a mere bagatelle, if exception be made for patent medicines, as compared with the average of expenditures incident to great enterprises; and I submit that the abandonment of active competition which is the only guarantee the public has for continued development in the technique of industry and for fair treatment upon the market, is a high price to pay for the destruction of ten cent magazines and the suppression of the travelling fraternity.

If trusts are not productive, are they profitable? Yes, trusts are profitable. They are profitable to their promoters and to those who by means of them are able to convert the common stock of a sinking concern into the preferred stock of a consolidation, provided the consolidation enjoys a monopoly of the market. The promotor makes money by over capitalization. For him the organization of a trust is merely a new phase of the old stunt of crystallizing a temporary advantage into a vested interest and then selling it out to innocent holders. But I cannot follow farther this line of analysis.

POSSIBLE SOLUTIONS

This paper would be incomplete as an introduction to general discussion should it contain no reference to the solution of the trust problem. As indicating the general point of view, it may be remarked that it is a mistake in strategy, if not, indeed, in logic, to treat the trust as though it were an industrial institution like the corporation or the trades-union. The trust is rather a phase of corporate activity called into prominence by a

combination of causes. It is, therefore, possible to destroy what we call the trust without impairing the efficiency of capital or the productivity of labor. A satisfactory programme of reform must touch the underlying causes of this present phase of industrial consolidation. I cannot, of course, speak of all these causes, but venture to mention three, each of which should have a place in any programme for the correction of prevalent abuses.

First. A survey of the past hundred years of industrial change makes evident the fact that industry on its mechanical side has developed more rapidly than on the side of management and administration, and in any final explanation of congested competition, a phrase which appears to me to suggest a fairly accurate diagnosis of the industrial ills of our time, the scarcity of business talent holds an important place. I do not regard this as a fundamental explanation of trusts, but as a contributory condition of deep significance. In so far as the centralization of industrial power is traceable to failure in the supply of business ability, no permanent relief from the evils of trusts may be expected until the highest grade of business intelligence becomes the common possession of the business world. The trust may be regarded as a corner in business insight, business talent and business courage. Many agencies must coöperate to break this corner, but among these agencies none should be assigned a more important rôle than the universities and colleges of our land. When high grade commercial education comes to be acknowledged as a legitimate and dignified phase of university instruction, and made attractive for young men ambitious for business success, the first step will have been taken toward the restoration of those conditions in which healthful competition

can again control industry. From the point of view of our universities the solution of the trust problem means the development of courses in higher commercial education.

Second. A study of the market since the introduction of steam transportation makes clear the fact that the temporary collapse of the competitive principle pertains to the transportation and sale rather than to the manufacture of goods. How far the recognition of this fact might lead the government in the regulation of the market, no one can say; but one point is clear. That which gives character to the modern market is the rule according to which payment is made for the service of transportation. This means that the railway problem lies at the bottom of the trust problem. In making this statement, however, I am unwilling to concede that the solution of the railway problem is limited to the guarantee of equal facilities to all shippers at the same price. The heart of the problem lies deeper. If the mischievous features of trusts are to be dissipated through the agency of railway reform, that reform cannot be arrested until the principles of public utility, rather than cost of service, becomes the ruling consideration in the formation of freight and passenger schedules. Before an audience of economists it is not necessary to develop such a suggestion, but I may, perhaps, indicate the extent to which my mind has been forced along this line of reasoning by the remark, that the railway problem will not have been solved until the manufacture and the sale of goods is again brought under the control of normal and healthful competition. Should this require the nationalization of railway property I find myself constrained to admit that the dangers incident to such

a policy are of relatively less significance than the dangers with which our industrial organization is threatened by the perpetuation and further development of manufacturing and commercial monopolies.

From the point of view of government then, the solution of the trust problem demands before all else, an efficient governmental control of the business of transportation, to the end that all manufacturers may be treated alike in the markets of the nation. The truth is that the monopolistic features of trusts pertain to the buying of material and to the selling of goods. It is market conditions and not manufacturing conditions that should claim the attention of the reformer.

Third. Neither the paucity of business talent nor the mal-adjustment of railway schedules is adequate to fully explain the tendency toward monopoly among manufacturers. Mention must be made of a third cause equally potent and infinitely more difficult of adjustment. I refer to labor organizations. The question as to whether trades-unions can or cannot raise wages is a familiar one to economists, but one feature involved in this controversy seems to have been overlooked. He who follows the logical development of the concession made by John Stuart Mill,—namely : that organization among workmen can increase the price of the commodity which they sell,—will be brought, sooner or later, to the conviction that every step in the rise of wages, traceable to the demand of workmen for higher pay, results in the disappearance of those employers who, under the old rate of pay were just able to maintain a profitable existence. Expressed in a sentence, this means that every successful strike sets in motion those forces which result in the concentration of industry. Trades-unions may raise wages, but they do so at the

expense of the small employer. If this be true, it is evident that the solution of the trust problem, or perhaps it would be better to say the readjustment of industrial forces and conditions by which the principle of commercial competition will be placed again in the seat of control, can not be attained without a final determination of the relative rights and duties of employers and employes, and the evolution of an organization, partly political, partly industrial, by which these rights and duties may be expressed, and through which they may be realized.

From the point of view of the economist therefore the solution of the trust problem means a more perfect analysis of industrial conditions and a more perfect understanding of the moral rights and obligations of labor. Of one fact we may rest assured. If the industrial analysis be clear, and the moral rights be plain, those who make our laws and administer our courts will not be backward in giving to these rights an efficient expression.

TRUSTS—DISCUSSION

BALTHASER H. MEYER : In 1886, the writer of the paper under discussion contributed an article to the economic discussions published in *Science*, in which he, Professor Ely and others participated, which outlined the essential features of the philosophy underlying the present paper on Trusts. In that article Professor Adams treated of three co-ordinate fundamental factors; namely, the nature of men, physical forces, and the legal structure of society. It was there stated that the legal structure of society had not kept pace with economic development, and that in this lack of adjustment lay our economic problems. Later, as president of the Economic Association, Professor Adams repeated this thesis, in substance at least; and to-day we find it re-stated in this paper on Trusts. We may assume therefore that this thesis expresses one of Professor Adams' fundamental principles of economic philosophy. With this philosophy, as I understand it, I am in hearty accord. Trusts are spoken of not as a sacred product of natural evolution, but as a new form of industrial organization which should be met by a new expression of the law of competition and by a new statement of statutory rights and duties. I desire to direct my remarks almost exclusively to this sentence in Professor Adams' paper.

Twenty-five and fifty years ago it was customary to charter corporations for specific purposes. Statutes frequently prohibited corporations from entering upon other lines of activity than those for which they were specifically organized. Thus, laws prohibited banking companies from doing an insurance business,

railway companies from doing a banking business, etc. An analysis of the great trust charters of to-day shows that these corporations have received omnibus powers, varying in number from a half dozen to several dozen distinct enumerations, embracing a great series of operations and processes from the raw material to the finished product, and generally ending with the blanket provision that the enumeration of powers contained in the charter shall not restrict the corporation to the same. In a word, the charters of many of the great trusts might as well be condensed into the simple statement that the persons named therein are authorized to do any and all things which it is possible to do legally. Such charters may be necessary, and beneficial even, but there is nothing in our legal structure which is capable of meeting the emergencies which may arise under such charters. I hold in my hand one of the latest of this type of charters. One of the objects for which this corporation is organized is expressed in a long succession of legal phrases the sum and substance of which is that the company may engage in anything and everything under the sun, it may acquire, hold, sell all kinds of property and issue valuable paper in payment thereof. It is expressly provided that members of the board of directors may make contracts with the corporation, within certain nominal limitations, which in substance are exactly like the contracts entered into by certain men connected with the United States post office and for the investigation of which the grand jury is now in session. Another section provides that the board of directors shall determine whether and to what extent and at what times and places and under what conditions and regulations the accounts and books of the company shall be open to the inspection of stockholders. A pro-

vision of this kind appears to be prudent and necessary in order to prevent the abuse of the privilege of inspecting books. It is conceivable that a person may acquire a little stock in a great corporation with the view of gaining access to books from which he may, perhaps, garble certain facts which can be used to the injury of a sound business, and for purposes of blackmail. However, there exist no adequate provisions in this charter, nor in the general corporation laws of the state in which it was granted, which insure to stockholders their legitimate rights in gaining information concerning the business in which they have invested their money, if a recalcitrant and hostile board of directors chooses to be arbitrary or unjust. [Professor Meyer read extracts from the charter illustrating these various points.]

Another illustration of the manner in which our industrial organization has run ahead of the legal structure is found in what may be called transverse business of affiliation, or, in the railway world, community of interest. Community of interest more properly designates an affiliation on the part of a single series of business enterprises, like railways, the manufacture and sale of steel, oil, etc., each of which is naturally and logically connected in a consequential manner with every other member of the series. In ordinary manufacturing enterprises this form of association follows the lines of production from the raw material to the finished product and its consumption. The other or transverse type of association follows the points of contact among a number of enterprises in their business sequences.

The mining company for instance, has necessary and close relations with manufacturers of machinery, with railways, banks, etc. This type of association, although as old as the other is of relatively recent growth on a

large scale, and at present it appears to be the predominating principle in the industrial world, as the following table will demonstrate.

A table illustrating transverse business affiliations, based upon the "Directory of directors for New York," 1902. The classification of business enterprises adopted in the table makes a somewhat arbitrary assignment of certain companies unavoidable. The table does not take cognizance of stockholdings as such. It merely represents the number and kind of companies in which certain men act as directors or officials.

NAME.	Bank.	Trust.	Insurance.	Safe Deposit & Guarantee.	Railway.	Telegraph.	Telephone. Cable.	Express.	Steamship.	Real Estate.	Manufactures.	Unclassified.	Total.
Alexander, J. W.	3	2	1	1	--	--	--	--	--	--	--	1	8
Babcock, S. D.	2	4	3	--	3	--	1	--	1	6	--	1	21
Baker, Geo. F.	6	7	3	2	8	--	--	--	--	1	9	--	36
Belmont, August	6	5	3	1	10	--	--	--	--	1	7	2	35
Cannan, H. W.	1	2	1	2	7	--	--	--	1	--	1	2	17
Cox, C. F.	1	--	--	1	26	--	--	--	--	--	--	--	29
Depew, C. M.	1	4	1	3	53	1	--	--	--	--	2	2	67
Fish, Stuyvesant	3	1	2	1	3	1	--	--	--	--	--	--	13
Gary, E. H.	2	--	--	--	6	--	--	--	1	1	23	1	34
Gould, Geo. J.	1	1	1	2	23	8	2	1	--	--	--	--	42
Harriman, E. H.	3	2	1	1	25	1	--	1	3	--	--	--	37
Hyde, J. H.	5	4	5	4	6	1	--	--	--	--	2	--	27
Lamont, D. S.	1	2	1	--	21	--	--	1	2	1	1	--	30
Morgan, J. P.	1	--	2	--	22	2	--	1	--	1	2	2	33
Rockefeller, William ..	6	1	1	--	9	--	--	--	--	--	11	--	28
Rossiter, E. V.	2	--	1	2	31	--	--	--	--	--	3	--	39
Sage, Russell	2	--	--	1	11	6	1	1	--	1	2	--	26
Schwab, C. M.	--	1	--	--	5	--	--	--	--	--	22	--	28
Stillman, J.	10	6	6	2	12	1	--	--	--	1	6	4	48
Twombly H. McK.	1	2	1	--	28	--	--	--	--	2	1	--	35
Vanderbilt, W. K.	1	--	--	--	50	--	--	--	--	--	--	--	54

The names in this list have been selected quite at random and the table could be extended through hundreds of names. A legal structure of society which was framed for a business world, simple in its organization, can obviously not suffice for an extremely complex system like that revealed in this table.

Professor Adams' reference to railways is so broad that the whole subject of transportation could be discussed under it. I shall confine myself to the statement of a few facts the contemplation of which urges upon

us the necessity of a new statement of the law of competition in its application to the railway business.

Every member of this association knows how fifty years ago the railway net of the United States was composed of small independent lines, frequently in competition with one another. As the systems grew agreements of various kinds were resorted to, beginning with rate agreements, continuing through pools, 1870 to 1887, transformed into traffic associations, 1887 to 1897 and 1898, and culminating in the community of interest principle, of which the Northern Securities Company is the most conspicuous example. The Northern Securities Company is the logical culmination of fifty years of railway development in the United States. Running chronologically parallel with this development we have fifty years of railway legislation based upon the fundamental but erroneous assumption that the railway business is like ordinary business and that competition among railways is like competition in private business. Laws which assume free and unrestricted competition among railways must fail because such competition does not, generally speaking, exist. Competition for traffic, in which the public has little or no interest, may prevail, but competition for the rate as a regulative principle has failed the world over. Anti-pooling laws and anti-trust laws have promoted that very type of railway organization which it was intended they should prevent. A body of railway administrative inventors has been in constant rivalry with a set of legislative inventors, and in this rivalry the railway set has always kept a little in advance of the legislative set. Legislation cannot overcome the inherent tendencies of the railway business. We may compel men, by law, to hang tomahawks on the walls of their houses, but no law can compel men to

use these weapons upon each others' skulls, especially when they are neighbors who must transact business with one another. Railway legislation has too often assumed that the cracking of skulls brings advantages to the public. I believe in granting to railways such powers as the nature of the business demands and remodeling our laws accordingly. I am unwilling to believe that the possession of large power will in itself lead to abusive use of such power, provided the state entrusts adequate discretionary powers to administrative authorities that can wield a strong hand over the law-breaker.

JAMES EDWARD LE ROSSIGNOL: The discussion of this paper, as Dr. Adams intimates, has suffered from much exaggeration, especially in regard to the economies incident to large industries, monopolistic or otherwise.

The condition of the independent producer is seldom altogether hopeless. His persistence in the face of extreme competition, is little short of remarkable. Even discrimination in railway rates does not always cause him to perish, and one is forced to the conclusion that the power of free competition is not so destructive as one has been led to believe.

The catchword "survival of the fittest" has been used as an argument to show that in every field the successive elimination of marginal producers must go on until one fit survivor alone is left. But if the development of industry is at all similar to the evolution of animals and plants, no such conclusion can be drawn. At times it seems as though the seed of a single plant would fill the earth, as though carnivorous beasts, birds and fishes would speedily exterminate all the rest, but, for one reason and another, land, air and sea are peopled

with innumerable forms of life, which continue to exist and to flourish in spite of, or with the help of the most adverse circumstances.

It may be that there is a similar law of balance in the industrial world. It may be that a perpetual struggle can go on without the elimination of other than the weaker competitors. If so, the trust is, as Professor Adams says, an ephemeral symptom of disorganized industry, created, it would seem, rather for the sake of the marginal producer than for the good of the strong competitor or the welfare of society at large. Indeed, the marginal producers, great and small, have received too much consideration, both in the sphere of economic thought and in that of political and industrial activity.

But what consolation is there in the thought that the trust, or monopolistic consolidation, is to pass away, if we are to have with us still the combination, pool, syndicate, community of interests or gentlemen's agreement with its familiar methods of dividing and limiting output, fighting outsiders and controlling prices? The consolation, though slight, is not to be altogether despised. In form, the combination is a mean between the extreme of monopoly and the extreme of destructive competition, and since, in the language of Aristotle, all virtue is in the mean between excess and defect, the combination, in form, at least must be a good thing.

Unfortunately, as a matter of fact, it inclines toward the vicious extreme of monopoly, and the stability which it gives to business is not sufficient to justify an undue departure from the golden mean. But if the tendency toward the extreme of monopoly could be sufficiently corrected, there could be little objection to

combination as such, on the part of the capitalist, the laborer, or the consuming public.

That such correctives exist, and that they operate to prevent the worst evils of monopolistic control, no one can reasonably deny. There is pressure from outsiders, competition actual, potential and imminent. There is pressure from insiders, whose expanding business demands reapportionment of output and readjustment of prices. There are the demands of organized labor, ever ready to claim a share of increasing profits. There is pressure from buyers, many of whom are members of strong combinations, while the final consumers, though not yet organized for their own protection, exert a considerable influence in the creation of public opinion, which the wise producer can by no means afford to ignore.

When we consider these and other natural remedies, and assume the enlightened producer to act with due consideration for them all, we are inclined to wonder whether the activity of combinations involves anything more than a reasonable antidote to unreasonable competition.

But the fact that combinations do at times exact monopoly prices and secure monopoly profits cannot thus be explained away. The influence of the ordinary correctives is not sufficient to prevent a considerable amount of extortion, and if relief is to come to the consumer from any quarter it must be from the state, which can, in a perfectly natural way, increase its activity as a factor in industrial evolution.

That the state will do this must be evident to anyone who considers the influence of economic conditions upon the development of law. In the arid west the requirements of irrigation have in a few years pro-

foundly modified the common law doctrines respecting the control of streams and the use of water. The doctrine of riparian rights, reasonable enough in England and the humid parts of the United States, has been found unreasonable in Colorado and other arid states, where the maximum of social utility is obtained by diverting water from streams in order to put it upon the land.

Many similar illustrations might be given to show that, although economic development may be so rapid as to go in advance of law, so that many unreasonable things are done and many offences committed for which there is no remedy, in a comparatively short time the law overtakes the line of progress and harmony between law and equity is again restored.

The problem, then, is not the trust problem alone, nor the railway problem, nor even the labor problem in the narrower sense of that word. It is rather the single yet multiform problem concerning the distribution of wealth. In its present form the problem is presented for solution, not by economists and philosophers, but by the representatives of various economic interests—combinations of manufacturers, wholesalers, retailers, laborers, railroads, insurance companies, bankers—all conscious of the evils connected with unregulated competition and all presenting remedies which they think adapted to their own special troubles.

The controversy appears to centre around the words *fair* and *reasonable* as applied to prices, profits, wages, rates, methods of business, and the interpretations given to these words are as various as the interests concerned. It is not an economic problem that is involved, except in so far as it originates in the economic facts of human life. Nor is it a problem that can be solved out of

hand at a single session of a meeting like this, nor by any economist in the seclusion of his study, though he should rack his brain for a thousand years. It is primarily an ethical and political problem to be gradually worked out by struggle and compromise between the various interests involved.

EDWARD W. BEMIS: I have such an admiration personally for my old instructor, the author of this excellent paper, that any criticisms that may be advanced will be offered in the most friendly spirit. It is, however, as I understand it, the object of such a discussion as this, to supplement, or point out in a paper, any weaknesses, if such may be found, rather than to point out its strong points.

The opening portion of the paper, showing that even if trusts are a natural evolution they need legislation adapted to them, as much as did the factory system and the corporation, and showing further that trust competition or potential competition is not all that is needed, and that trusts should not be considered as necessarily productive because successful, and that we do not have adequate remedies now, in common law, for the trust problem—all this, which constitutes the bulk in space of the paper, is admirable. My criticism will be confined to the definition of the trust, and to the three reforms or advance steps suggested in the paper.

Professor Adams defines a trust as "an industry which on account of its size or its form of organization, exercises a dominating influence on the production or sale of the goods in which it deals." My criticism relates to whether it is necessary to include the clause "on account of its size or its form of organization." It is doubtless true that the trust must have large size

relatively to other business organizations in the same line of industry in order to dominate them, but the question is whether it is the size which gives the domination, or whether we are to look for the causes of the size. There may be disagreement with regard to those causes in the present state of discussion. It may be well, therefore, to omit from the definition any statement implying a theory of the causes of the power of the trusts, but if any causes are given, it seems as if they should be more fundamental than the question of size or organization.

How would it then do to define the trust merely as "an industry which exercises a dominating influence on the production or the sale of the goods in which it deals?" I do not think that Professor Adams believes, as some do, that mere size or form of organization necessarily gives a dominating influence, unless there is associated with these factors other elements such as special privileges to be referred to later on. Unless then, the definition can include a reference to all the important factors of a problem, it is better to omit any reference to causes and secure the merit of brevity.

Professor Adams is of course right in saying that any satisfactory programme of reform must touch the underlying causes of industrial consolidation. He mentions three such. It is interesting to note that he altogether omits, and rightly so, any endorsement or other reference to the prevailing fad of publicity. Of course this cannot be because he is opposed to publicity. No one can object to all the light on any phase of the trust problem which the advocates of publicity are likely to secure,—but it is refreshing that this is not put forward as a fundamental remedy or line of advance. Publicity, so far as it can be made effective, will be chiefly instru-

mental in showing which of the so-called trusts are real trusts, and to what extent they are sound investments. If the trust problem consists in the protection of investors from putting their money into enterprises which could not fill their expectations in the line of profit, then publicity would be more important than it is. It would of course show that the Standard Oil stock is a safer investment than some others. It would be as ridiculous to suppose that we were solving the trust problem by helping investors to find out which trusts are the strongest, as it would be to attempt to solve the problem of municipal monopolies by putting forward as our chief thought the determination of what gas or street railway stocks it is safer for one to purchase, or whose prospectus is worthy of the most confidence. Yet this is about all that most of the present national administration and many others, even some economists, seem to have in mind when they talk about separating the good trusts from the bad ones. Publicity for investors is well enough, but what we are chiefly seeking is protection for the consuming public and for competitors and employees. The kind of publicity that will bring that about is not the kind that is primarily in the minds of most advocates of the term. We will now take up the three suggestions of Professor Adams.

His first suggestion, with respect to the need of increasing the amount of business talent in the community, he himself concedes is not a fundamental matter, and to my own mind it does not seem even as important as to him, so far as it relates directly to the problem of the trusts, although its general importance and the value of commercial education as a branch of university instruction, and as one means of increasing

business talent, none of us who have ever been teachers would be inclined to deny.

Passing for a moment his second suggestion, we may note that his third and last is the need of "a final determination of the relative rights and duties of employers and employees." He appears to hold that there is something in the modern trade union movement which is a fundamental cause of the trust and must be changed. I do not understand what was in the author's mind, from his very brief references, sufficiently to reply to it. There is certainly much in the modern labor movement which can be criticised, although on the whole it appears a necessary weapon of labor and a benefit to society. It may be also true that organization of labor tends to promote combination of capital, just as the reverse is also true, but how the trust, in the sense of a giant corporation, independent to an alarming extent of either actual or potential competition, can be considered as a general thing to be an outgrowth of labor organization or of the modern labor movement, it is hard for me to understand.

The second suggestion, that of railroad reform, goes to the root of a great portion of the trust question. Until we can abolish all favoritism to large shippers, we cannot hope to make much progress with the trust question. If the advocates of publicity would say about half as much on that subject as they do, and one hundred times as much on the abolition of all railroad discriminations, we might hope in time to get somewhere with the problem before us. Despite some improvements, which the Elkins law has effected, the Interstate Commerce Commission in the synopsis of its seventh annual report transmitted to Congress December 18th, is obliged to state that even where tariff rates

are observed, it is possible to so adjust these published rates as to be equivalent to the payment of a rebate.

The new law "greatly aids the observance of tariff charges, but affords no remedy for those who are injured by such charges, either when they are excessive or when they are inequitably adjusted." It is a well known fact that one reason for the payment of the enormous amount of money in bonds to a certain "philanthropist" for his interest in enormous iron and steel plants, was because of his threat to parallel the main line of the Pennsylvania Railroad if he could not secure a continuance of the rebates which were responsible for many millions of his fortune.

Professor Adams omits one line of attack upon the dangerous powers of the trusts almost as important as their control of railroad rates, viz: their control of limited sources of supply of coal and ore, their control of patents, their protection from world competition by the tariff, and their escape from such a ratio of taxation to the market value of their property as is borne by the farmer and the small business man.

There is a tendency in much trust discussion to put the "cart before the horse" and to speak of the trust as producing a monopoly, whereas, in most cases it is the monopoly which produces the trust. There may be, and I am inclined to think there is something of a monopoly feature in mere aggregation of capital where an enormous amount of wealth is needed to secure the requisite machinery to open up markets in competition with an established corporation, but the importance of this monopoly is of minor consideration at present compared with the special privileges just referred to. Only those trusts have an assured future that have their "feet upon the ground" as Louis S. Post has lately put it in

the "Ethics of democracy," or those which are especially favored by tariffs, patents and unfair escape from taxation.

In the answer to the suit brought by Hodge, Curtiss & Smith, to prevent the United States Steel Corporation from carrying out its bond conversion plan, certain very significant statements were made. The answer was filed July 15, at Newark, N. J., before Vice-chancellor Emory. It placed the value of its iron ore properties at \$700,000,000, and its coal and coke field and natural gas fields at \$120,000,000, or over one-half of the entire \$1,400,000,000 value placed upon the entire property. Its cash and cash assets, its plants, mills, fixtures, machinery, equipment, tools and real estate, its blast furnaces, and even its 1467 miles of railroads, amounted only to \$576,000,000. Probably less than \$500,000,000 represented actual material and equipment.

In his testimony before the Industrial Commission, Mr. Schwab declared that his corporation owned 500,000,000 tons of iron ore in the North-west, which ought to yield a profit of \$2.00 to \$2.50 a ton, and about 60,000 acres of Connellsville coal, which he said was practically all there was, and which he said doubtless with considerable exaggeration, could not be bought for \$60,000 per acre.

It would be very interesting if some university, or the Carnegie Institution at Washington, would provide for a thorough investigation of the assessments and taxes of the whole or any large part of the anthracite coal fields and the iron ore districts of Lake Superior, or the coke fields of western Pennsylvania, and compare these assessments with the valuations put upon those properties by the owners and with the assessments and taxation of farm properties in the same counties.

To sum up this necessarily brief discussion, we need not much concern ourselves, for some years at least, with mere large aggregations of capital independent of monopolistic advantages. So far as they will survive if stripped of all special privileges not enjoyed by you and me, it will largely be because they have won the right to survive through superior industrial service. But that feature of our strongest trusts which gives them their enormous and unfair advantage in the race, is their possession of immensely valuable special privileges in a dozen forms. Unless these, with the exception of patents, can be destroyed, all ideas of fair play in business, and all reason to believe that the survival of the strongest is at the same time the survival of the fittest, will be gone. The result would be calamitous indeed.

MAURICE H. ROBINSON: A partial analysis even of the so-called trust problem must necessarily recognize its complex nature. It naturally comprises, first, a study of the evolution of the industrial organization from a simpler to a more complex form; second, an investigation of the power of such organizations over the industries of the country, the means used to achieve a partial or complete control in its particular field, and the effects of this dominating influence upon the production and distribution of wealth and; third, the sphere of the State in protecting the public welfare and the means by which such protection may be most wisely and permanently attained.

The definition adopted by Professor Adams performs a double service: it limits the discussion to a consideration of those organizations that possess a dominating influence in a particular industry and consequently excludes a large number of consolidations commonly

called trusts from the inquiry; and it recognizes that a "dominating influence" may be secured in either one of two very different ways: (a) by the growth of one business organization until it crowds its rivals to the wall or forces them to submit to its leadership as a price of its continued existence; or (b) by the amalgamation of practically all the competing units into one organic whole, more or less permanent and effective.

With these preliminary considerations in mind I wish to limit my remarks to a necessarily brief discussion of two lines of inquiry raised by the paper, since upon our answer to these fundamental questions must depend our attitude to the trust problem and its legal regulation.

I. Are trusts a natural growth? (a) If trusts are a natural growth as an incident of the "crowding out" process, the results ought to be evident in the increasing size of the producing units and their decreasing number from decade to decade. Unfortunately our census statistics relating to manufacturing are not arranged with this purpose in view and therefore methods must be crude and results less exact. The tendency may nevertheless be discovered in a general way and with more exactness in certain industrial groups. Taking the manufacturing industries as a whole the maximum size seems to have been reached in 1890. In 1900 on the average, each establishment employed a less number of men, paid less in wages, used less materials, turned out less value in product, and employed only slightly more capital. The same is true of a large majority of the specific industries. This tendency does not run through all the industries of the country, however. There are several groups in which the units steadily grow less in number and larger in size decade by decade. Some of

the more marked cases, comparing the number and capital investment in 1880 and 1900, are :

Agr'l implements,	40%	less in number,	175%	increase in av. capital
Cordage and twine,	40	"	200	"
Malt,	33	"	190	"
Matches,	40	"	175	"
Linseed oil,	40	"	200	"
Floor oil cloth,	28	"	100	"
Safes and Vaults,	12	"	150	"
Salt,	40	"	233	"
Iron and Steel,	25	"	150	"
Blast Furnaces,	33	"	50	"

In the above named industrial groups, together with some others including the manufacture of oils, gas, textiles, liquors, starch, paper, chemicals, tobacco and others, the number of independent plants has constantly been decreasing while the investment of capital has been increasing at a rapid rate. Consequently the average investment is much larger per plant and the output is proportionally increased. Such industries may be appropriately called the "consolidating industries." In a general way they have the following characteristics :

(1.) The goods are of uniform quality and in staple use.

(2.) They require an exceptionally large investment in plant and machinery for profitable production.

(3.) They depend for success more largely upon the perfection of their organization than upon the "industrial taste" of their managers.

While the tendency to consolidate as a result of the greater economy of the larger establishment exists, there is as yet no indication that it will ever result in the domination of one establishment in any industry. The larger plants are apparently reaching the size that gives the maximum economy and when that is reached this process will come to an end. In other words, a mo-

nopoly in any one group must come, if it comes at all, as a result of the union of competing units and not through the destruction of the weaker by the stronger.

(b) Whether the tendency to unite for common ends is an inborn characteristic of the race or an acquired trait may well be left to the students of the science of society. At the present time it is quite universal: in politics, the union of parties and states; in economics, the amalgamation of employers and of laborers; in society, the formation of clubs and their federation into national organizations. The formation of trusts is then not an isolated phenomenon, it is a part of a universal tendency. It is not only everywhere present but it takes on every possible variety of form from the simple association to the holding corporation. The association—such as the Merchants' Association of New York—has indeed no monopoly power but is nevertheless of very great importance owing to its socializing effects and its tendency to prepare the way for a stronger organization, the combination or pool. The combination is the characteristic form in practically every country where trusts exist except England and the United States. At the same time it has a much more powerful influence in this country than is generally admitted. It is effective only while it includes a large percentage of the producers in any industry. Its chief end is to control directly or indirectly the price of its product and the amount of the output. The combination grows into the company, wherever the legal system permits. The company form not only allows monopoly but in addition ensures permanence and whatever economies a strong and efficient organization make possible. Is there a tendency for the combination and the giant corporation, one or both, to dominate the in-

dustries of the country and of the world? The census of 1900 shows that in the United States out of over 500,000 separate manufacturing establishments, about 12 per cent in number were in the corporate form producing approximately 60 per cent in value of the manufactured goods. The corporate consolidations, however, did not control much over one-fourth of the total invested capital, while those which exercised a dominating influence certainly represented a much smaller fraction still. The extent and influence of the combination in this country cannot be determined with accuracy owing to the fact that such organizations are illegal and therefore largely secret. Their power is, I believe underrated, and I question whether the "dominating influence" of some of the so-called trusts is not due as much to a combination with the outsiders as it is to their own independent power.

Is there a casual relation between the two tendencies just described? It will be noticed (1) that every one of the great trusts have been formed within an industry where there already existed a strong tendency to form fewer and larger producing units. (2) Few, if any trusts have been formed in those industries where such tendency is absent and further such organizations have kept re-organization committees and receivers busy. In certain cases trusts have been abandoned because, as stated by the president of one such, the business could be more advantageously conducted by the constituent plants independently.

In the light of these and other facts which might be cited if time permitted, I am forced to the conclusion that very large organizations possessing in some cases at least a certain degree of monopolistic power are a natural growth under our *laissez faire* economic sys-

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tem. With our legal system adjusted to the new economic conditions as suggested by Professor Adams in his paper and by Professor Meyer in his remarks, it seems probable that while the giant organizations would still persist they would be stripped of most of those dominating traits which are proving dangerous to society and are likely in the end to cause their own downfall.

II. Are trusts productive? A trust as defined is a partial monopoly—the monopoly power being due to the control of the major portion of the output of a particular industry. It is a monopoly *in posse*, not *in esse*. It must maintain this dominating position or lose its distinctive characteristic as a trust. To maintain this position it must either :

- (1) Produce at a lower cost than its competitors, or,
- (2) Control the industry by the use of piratical methods, or,
- (3) Rely on the protection of the government or special privileges from related industries, such as the railways.

In the past, the trusts have apparently depended upon all three of these methods. Whether beyond a certain point capital in itself is an aid in reducing the cost of production may be doubted. Such a conclusion is not equivalent to asserting that in a trade war an abundant treasury is to be despised. We have been passing through a stupendous competitive warfare and in such a warfare capital counts. Under such circumstances success does not necessarily come to the company that produces at the least cost, it comes rather to the one that can endure the longest or fight the hardest. We have been allowing the "big fellow" armed to the teeth to meet his unprotected antagonist in the ring, saying

"hands off" and afterward present the ridiculous spectacle of investigating why the little fellow is knocked out in the first round. For such a situation the nature of the remedy is clear, although the exact form it must take can only be solved by experience.

When all this has been granted and it has been further admitted that many of the trusts have been living upon favors from the government or the railways, it may still be asked, are not the trusts efficient producers? Two lines of argument may be used:

(1) Statistics of failures show that an exceptionally large proportion of the whole occur among the smaller plants, and in this connection it may be noticed that Professor Adams has admitted that organized labor by raising the price of its wages forces the smaller producers to the wall. This means that the larger producers are operating at less cost.

(2) It is generally admitted by both business men and economists that efficient production depends upon labor, capital, methods of production, and organization. An increase in the efficiency of labor cheapens the cost of production, so does better technical methods, so does a more efficient organization. The trust is a form of organization and it is at least possible that such a form may prove more economical than that which it has superseded in certain lines. If the preceding analysis is at all correct however, such economies as may be effected through a more efficient organization are in their nature differential gains not monopoly profits. Such gains are due to a better organization and can be retained only so long as such efficiency is maintained. They are thus a perpetual incentive to the continued economical organization of the productive forces.

W. G. LANGWORTHY TAYLOR: I believe that the important fact connected with the trusts and their evils is not so much the combining of large firms and corporations into larger ones, as the direct and plain fact of over-capitalization. This is the cause of commercial crisis because it is the cause of the inflation and rise of prices about which we hear so much before crises. If I had time, I believe I could demonstrate that the rise of prices is due to the over-capitalization. I do not say that any peculiar blame lies upon the promoters—not, at least, in excess of that which lies upon other classes. The over-capitalization seems necessary in order to bring out the individual surpluses and sell the stocks. Hence the investing public is made *particeps criminis*; nor do the laborers escape guilt, with their extortionate demands at the very moment when the financial waters are roughest. But, confining ourselves to finance, the connection between over-capitalization and prices, and hence with crises, lies evidently in the implied high returns. It is supposed that very large, impossible, returns will occur and will continue; large subjective value of products is promised and believed in. Now over-capitalization is simply the financial form taken by these promises. High returns mean high prices for stocks and bonds, if the rate of interest is to be kept down to the "effective desire of accumulation." But these large nominal capitals mean a big demand for present goods; they are the means of circulating present goods, and hence the inordinate rise of prices of commodities—the "present goods" of Boehm-Bawerk.

My object in speaking to the question, however, was to call attention to the resemblance of present phenomena to those of the crisis of 1873. I have recently

been looking at a publication that appeared shortly after the crisis of 1873 in Germany, by one Glagaŭ, a very racy writer, who collected in his notes an account of a very large number of separate *Gründungen* or promotions during the *Schwindelära*. I have looked rather carefully through these accounts and I have failed to find in them any case of considerable combination. They were all cases of over-capitalization *simpliciter*. No one can claim that 1873 was not a typical crisis, with the full-fledged phenomena of inflation, high prices and their subsequent fall. I merely draw this parallel in confirmation of what has been stated here by Professor H. C. Emery, and, I think, by others, that combination is not the essence of the promotion evil.

JACOB H. HOLLANDER: I have been disappointed in the extent to which the discussion has concerned itself with the technique of trust organization and administration, to the neglect of what seems the more vital, and certainly the more fundamental problem suggested by Professor Adams' paper, namely, the theoretical basis of the existence and growth of industrial concentration. Before we can advise wisely as to the necessity and nature of legislative control of the trust, we must first reach some definite conclusions as to whether there be any assignable limit to the size of the modern industrial unit, and as where such limit lies, and what forces determine it. This seems to me the primary concern of economic analysis, and until we have reached more definite and convincing results than those thus far attained, we can give neither intelligent counsel nor helpful service to the legislator or administrator grappling with the so-called "trust problem."

THOMAS N. CARVER: In discussing the supposed superior productivity of trusts it is sometimes forgotten that trusts are not made to produce, but to sell. The trust promoter's sole concern is to sell his securities. This he would not be able to do unless the public believed that the trust would be productive, or was at least intended to produce. But the buying public seems to be about as unsophisticated in such matters as was the rustic who bought the razor supposing that it was made to shave but found that it was only made to sell. Until the buying public becomes somewhat more sophisticated, and loses some of its faith in the inherent superiority of a "big thing," the productivity of a trust will remain a minor consideration in the minds of its organizers.

HENRY W. FARNAM: I do not know exactly what is expected of the person who is to summarize the discussion, but I have tried to meet the requirements of the situation by separating my mind into two compartments. One of them might be likened to one side of a revolving blackboard, which has been carefully sponged in order to receive in an unprejudiced manner the impressions made by the other speakers; on the other side I have endeavored to record and retain a few points which seemed to me might be made in comment upon or supplementary to the paper of Professor Adams. As the discussion has proceeded, the blank side of the blackboard has been gradually filled up with the ideas contributed by the other speakers, while the other side has been gradually becoming cleaner, as one idea after another which I had thought of has been advanced by some one else, and been expunged from my talk. Acting on this conception of my task I shall first endeavor as

fairly as possible to sum up in a few words the leading points made by the preceding speakers, especially as far as any general agreement can be traced. I shall then add a few suggestions of my own on points which have not thus far been touched upon.

When the Chicago conference on trusts was held in 1899, a committee on resolutions was appointed which stated in its report that its members had different views on the problems to be discussed, and recommended a resolution to the effect that "it would be inexpedient for it (the conference) to adopt resolutions purporting to declare the sense of the conference upon any aspect of the subject discussed." When the subject of trusts was announced for discussion by this association, I very much feared that the end might be a similar agreement to disagree. In this I have been agreeably disappointed. If I have rightly understood the speakers, almost all, if not all, would agree regarding certain leading points, although their agreement on many of these would seem to involve a certain disagreement with the views expressed by Professor Adams in his very able opening address. The points of apparent agreement which have most impressed me are the following:

(1) The speakers have generally based their arguments upon a study of the facts, rather than upon a consideration of the psychology of economics. Certainly they have not shown as great a fear as that expressed by Professor Adams of the dangers of monopoly involved in the trusts.

(2) They are more inclined to think that these evils will be held in check either by potential competition or by a farsighted regard to their own interests on the part of the trusts.

(3) As regards legislative measures, none of those who have spoken would seem to be in favor of abolishing the trusts altogether, but would rather favor some legislation which would limit their power for evil. On the other hand, no one, with possibly a single exception, would favor a *laissez faire* policy.

(4) There also seems to be a general agreement that the exhibition of promoters' profits, inflated capitalization, and stock-jobbing devices, which we have recently witnessed, while deplorable in the extreme, is not necessarily connected with the trust systems, but has shown itself under various forms in other periods of speculation. One must indeed be bereft of historical sense if, standing in the city of New Orleans and in the old Province of Louisiana, he did not recall Law and the Mississippi scheme and the undigested securities of one hundred and eighty-four years ago.

Professor Adams has laid a good deal of stress in his paper upon the danger of monopoly in trusts, and there is no doubt of the tendency on the part of trust managers to create for themselves an exclusive or nearly exclusive field. But is this really the essential feature which has aroused so much popular feeling? I think not. The mere fact that we should use to designate these combinations a term which no longer describes the form under which any one of them is now organized, and under which very few have ever been organized, confirms my view. In addition to the fear of monopoly, what especially arouses indignation at the trusts is, in my view, the fact that by a lawyer's trick a time-honored English legal term, which implied above all things responsibility, has been used to mask a form of combination, the essence of which is irresponsibility, that is irresponsibility to the government and to the public.

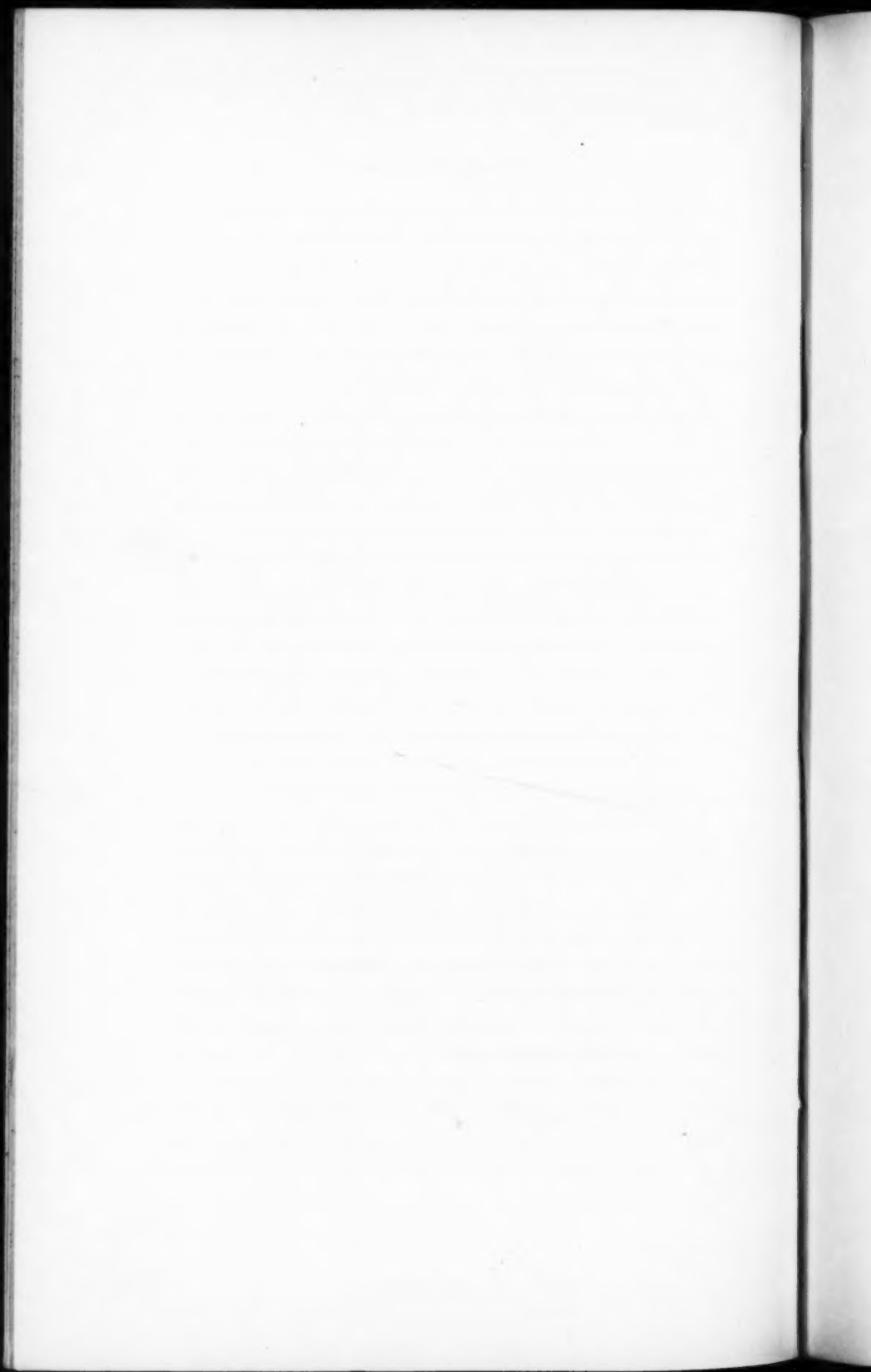
I believe that the monopoly feature of trusts is very generally subject to limitation arising from the nature of modern industrial organization, so that while there may be exceptions the consumer is not the one who has most to suffer by them. Many examples could be given to show the practical operation, either of potential competition or, where this does not exist, of self-restraint exercised entirely through motives of far-sighted self-interest. Thus I could instance a railroad, which has practically a monopoly of transportation in a large section of the country, and which formerly seemed to exploit that monopoly with a single eye to the stockholder's dividends. The more modern men who have come into its management now take the view that, while they mean to continue paying dividends to stockholders, the welfare of such a road depends upon the welfare of the country which it serves, and that it is therefore, for the interest of the road to make such rates as will develop the business and traffic of that country.

The policy introduced into many gas companies in recent times, though perhaps stimulated by the competition of the electric light companies, is another instance of the tendency of the modern business man to make his gains out of small profits on a large volume of business, rather than out of large profits on a small volume. Some inquiries which I have made into the operation of the sugar trust have convinced me that here too, while the trust certainly has an advantage in bargaining power on account of its large transactions, it is not able either to depress the price of the raw material or to raise the price of the finished product as much as has been often assumed. An instance just mentioned to me by Mr. Marburg is also in point. He tells me that the formation of the tobacco trust has been the means of

greatly stimulating cotton raising in the vicinity of Durham. The general fact which applies to most of these cases is that modern methods of production involve the use of a large fixed capital, and that to utilize this involves a very wide market, while to gain this market it is necessary that the prices should be moderate. Monopoly, therefore, under modern business conditions and under modern far-sighted business management, means a very different thing from what it meant when the Dutch East India Company destroyed half of the spice crop in order to raise the price of the other half, and it seems to me that Professor Adams' plea for the higher commercial education might be based, not only upon the ground that it would encourage competition, but also upon the ground that it would encourage far-sighted, as distinguished from short-sighted business management in our large corporation.

The greatest evils are, therefore, perhaps ethical, and legal, rather than strictly economic, and in dealing with this phase of the matter I venture to say that the forgotten man is the corporation lawyer. It is he who devises the various forms of organization under which great corporations, while conforming to the letter of the law, succeed practically in doing what they please. Now, the corporation lawyer always has and always will have a great advantage over the average legislator, partly because he is a much abler, more highly trained and more highly paid man, and partly because it is easier to work a hole through the meshes of the law than to make a general law so tight that no hole can be found in it. It is, therefore, very important that our laws should be such as not to tempt the respectable and honorable lawyers and corporation managers to try to evade them. This means that they should be simple not fussy, that they

should aim at the real root of the evil not at its symptoms, and that they should keep in mind the social point of view which was so ably presented by President Seligman in his opening address. By that I mean that they should try to encourage a type of socially useful rather than socially harmful corporation managers. As far as these managers are broad-minded, striving to effect economies, and adopt new methods in production; they may, I think be fairly said to be socially useful, whatever we may think of the size of the compensation which they get for themselves. But it cannot be socially useful to be tricky, vindictive, unscrupulous, dishonest or corrupt. This is not the place, nor am I prepared, to outline in detail a law for the regulation of trusts. I may, however, venture the suggestion (made with that diffidence which Professor Goodnow said was characteristic of the lawyer in speaking on a subject which had not yet been passed upon by the Supreme Court), that in order to secure the necessary uniformity, I believe that we should resort to federal legislation rather than rely upon state legislation. I also believe that our experience with regard to the regulation of banks under the national banking system points out the line of most profitable progress. We are now going through a period of wild-cat corporation finance, corresponding to the period of wild-cat banking which preceded the Civil War, and while I do not shut my eyes to the great constitutional questions involved in federal legislation, I hope we may find the means of solving them, as we have solved similar questions in the past.



A THEORY OF SOCIAL CAUSATION

FRANKLIN H. GIDDINGS

The human mind cannot rest satisfied in a chaos of unassorted facts. Some arrangement of the materials of knowledge it must make. In the degree that it gets beyond arrangements that have no real significance, to those that disclose great processes of causation, and establish their laws, it becomes scientific.

The simplest categories by which facts can be arranged are those of time and space. Chronological series and spacial descriptions are the resources of the childish mind, unable to analyze things sufficiently to discover their essential resemblances. They are the resource of great minds also, confronted by facts too strange or too complicated for other disposition. When at a loss where else to place a novel fact one puts it in a pigeon hole, under a date, or under a letter of the alphabet.

The first step toward science is taken when, among facts grouped by time or space, we observe resemblances of structure, or resemblance of activity, of function or of conduct. For result we have the classificatory stage of science, the beginning of a morphology and a physiology. When observations upon matter and its behavior were removed from the categories of days and seasons, of accidental disposition in this or that region or position, they ceased to be magic or alchemy; in an elementary way they began to be physics and chemistry. In like manner, the observed facts of plant and animal life, through studies of structure, and the resulting classifications made by Linnæus and Cuvier, became descriptive

botany and comparative anatomy. They were no longer the vague natural history, half description, half anecdote, of Buffon and his predecessors.

Only after the work of classification has been accomplished ; only when the great types of structure, and the great modes of function have been revealed, is the mind able to penetrate further beneath the surface of things, and to discover there, underlying types and modes, the continuing processes, and the active causes of change and of grouping. When these discoveries have been made, the facts, correlated with general processes and with true causes, have become science, fully developed in method, and satisfying the craving of the mind for explanation in the one possible sense of that word, namely, the establishment of logical relations between instances and principles.

The more numerous, varied and complicated the facts found in any assemblage of observations or of testimonies, the more difficult it is to discover among them any other groupings than those of the time and space categories ; the longer we have to wait for that arrangement of them which can properly be called science.

Of all known assemblages of facts those pertaining to the social life and organization of man, in the past and in the present, are the most numerous, the most varied, the most intricately complicated. It is no wonder, therefore, that slow progress has been made in arranging them otherwise than by the simple categories of time and space. These have determined a subdivision of the whole field into three great branches of concrete social knowledge. Social statistics, as Seignobos, in his study of historical method, has said, is primarily separated from history not by that difference of method which also

exists, but by the mere circumstance that social statistics concerns itself with social facts under observation in the present, while history concerns itself with social facts observed and recorded in the past. In like manner, while one way of stating the delimitation of history from ethnography would be to say that history studies societies that have arrived at civilization, while ethnography studies societies still uncivilized, the more familiar statement is, that ethnography studies man as geographically distributed, while history studies him in so far as he has had a chronologically ordered and recorded career. Furthermore, in the internal arrangement of the facts making up each of these branches of social knowledge, the space and time categories still hold sway. Ethnography is only now emerging from an arrangement of its materials according to a merely geographical scheme. The great bulk of all written history is still frankly chronological in its arrangement; and social statistics has not to any great extent gotten beyond the simplest spacial categories.

Yet, within recent years, there has been a growing restiveness under these limitations, and not a decade goes by without attempts to grapple anew with the problem of a more scientific comprehension. Some progress has been made towards substituting the categories of structure and of function for those of time and space, as was done in natural history when the classification by morphological types arose. For example, in ethnography we have attempts to group the known facts of primitive society according to various psychological principles and schemes of culture. We have the subdivision of historical materials into cultural and institutional history, and, more minutely, into religious, economic, juristic and political history. In social statis-

tics we are beginning to recognize distinctions that mark off the statistics of population proper from statistics of the social mind; these from statistics of social organization; and these, in turn, from statistics of the social welfare.

Even this measure of progress has not satisfied. From time to time the attempt is made to get below classification itself, and to discover in social evolution an orderly process, appealing to the rational intelligence, and to find its underlying laws and causes. This is the explanation of the ever-recurring interest in some scheme of the philosophy of history, or in some principle of interpretation. The great concept of universal evolution, which has brought order and harmony into the sciences of life and of mind, has powerfully stimulated a desire to develop the concrete social sciences of ethnography, history and statistics, into true explanatory sciences, and to fashion their materials, by correlation with principles of causation into a reasoned science of sociology.

Not less significant, furthermore, is the circumstance that of these various attempts those that have contained any element of mysticism or of transcendentalism have fallen into discredit. He would be a bold man who to-day, after a thorough training in the best historical scholarship, should venture to put forth a philosophy of history in terms of the divine ideas, or to trace the plan of an Almighty in the sequence of human events. On the other hand, those interpretations that are characterized as materialistic, and that try to find the causes of social evolution in the action of the physical environment, or that, seeking explanation in the tremendous process of the struggle for existence, find an interpretation in the circumstances of man's economic life, are daily winning serious respect. In so far as they fail to

satisfy, it is because they have not yet shown how, out of such materialistic causes, there emerge the complex phenomena that take shape in cultural activities; in the infinitely involved psychological aspects of man's collective life; and, above all, in those sublime idealisms that bear multitudes of human beings into struggles that seem to sacrifice all considerations of utility, of prudence even, in the pursuit of some glorious aim that appeals only to the soul.

Is the problem insoluble that is thus presented by the existence of social idealism in a material world? I do not think so. Believing that in certain elementary social facts long recognized as interesting, but not always seized upon as significant, we have the data for correlating the idealistic aspects of social evolution with its material basis, I venture to bring forward tentatively a theory of social causation. I hope that it may contribute something toward a rational ordering of the great mass of materials presented to us by ethnography, by history, and by statistics, in a science of society; and that, as the principles of such a science gain acceptance, it may pay its debt to these branches of knowledge by making over to them categories of arrangement and helpful working hypotheses.

At the outset we may take a hint from the psychologists. Scientific psychology has found one way, and only one, to avoid any assumption of either materialism or idealism, in the philosophical sense of those words. It consists in centering attention upon the correlations of material and mental phenomena, rather than on the nature of things in themselves. External things are conceived as stimuli, and internal processes are conceived as responses to stimuli. Causation within the realm of

mental phenomena, is thus regarded as psycho-physical. It is a process in which the mental order changes in definite ways corresponding to changes in an external order. To discover these ways and to formulate their laws is a sufficient scientific achievement in psychology. It is unnecessary to raise any question of the identity, or of the duality, of mind and matter.

This conception we must carry over into sociology. Causation in society is not at one extreme a merely physical process; nor is it, at the other extreme, an outworking of some mysterious entity called free-will, that is in no wise conditioned by the external world. Like the activity of the individual mind, it is a psycho-physical process, in which physical stimuli, on the one hand, and motor-reactions, accompanied by feeling and by thought, on the other hand, are inseparably associated.

Accepting this hint, we make the initial assumption that the institutions of human society, and all the events of history, including the migrations of men from place to place, the great enthusiasms, the intellectual awakenings, the wars and the revolutions, may be regarded as responses to varying stimuli, and that they are governed by certain laws of combination, or by certain facts of resemblance or of difference among the minds responding.

The illuminating aid of concrete example will help to make this somewhat unfamiliar way of looking at the subject more definite and real. In the codes of ancient law that have come down to us from peoples emerging from a tribal into a civic life, there are pictures of spontaneous social action that, by reason of their relative simplicity, enable us to see the essential nature of social processes more distinctly than we do when we observe the exceeding complexity of modern institutional activ-

ity. Of such pictures I know of none more clearly reflecting the social process as a psychological phenomenon than do those curious and beautiful triads of *Dyvnwal Moelmud* that are included in the Ancient Laws of Wales. In simple language, almost poetical in form, the various occasions that draw men together in mote, or meeting, are described. Here are examples :

5. There are three motes of mutual protection : an outpouring mote ; mast gathering ; and co-tillage. Herein the hand of everyone is required to assist according to his ability.

6. There are three horn motes : the assembling of the country by elders and chiefs of kindreds ; the horn of harvest ; and the horn of battle and war, against the molestation of a border country and strangers.

14. There are three motes of consociation : a convention of a country and elders, arranging the laws and judgments of a common country ; bards as teachers of sciences, where they assemble in session ; and the congress of a kindred, at a meeting for worship on the principal high festivals.

15. There are three motes of imminent attack : the inroad of a border country enemy ; the cry, or the horn, of murder and waylaying ; and a hamlet on fire : for assistance is required from everybody.

16. There are three horns of joint mote : the horn of harvest ; the horn of pleadings ; and the horn of worship.

17. There are three motes of commotion : the horn of the country ; ships from a strange country effecting a landing ; and the non-return of the messenger of a country and elders from a foreign country.

18. There are three motes of request : for tillage ; festal games ; and burning of woods ; for, upon a request, they are not to be impeded.

21. There are three motes of pursuit : after a wolf ; after thieves ; and after a mad dog ; and all who shall hear the cry are to assemble together.

22. There are three outpouring motes : the approach of strangers without permission ; the depredation of a border country ; and a pack of wolves.

26. There are three motes of banishment : for murder and waylaying ; treason against the state, or treachery to the country and kindred ; and irretrievable spoliation ; for it is required of everybody, of every sex and age within hearing of the horn, in the direction taken, to accompany the progress of that exile ; and keep up the barking of dogs, to the period of putting to sea, and until the one banished shall have gone three score hours out of sight.

The social process revealed by these pictures of a simple community life does not admit of misinterpretation. Not only is each example of collective action a response to stimulus, but it is even so conceived by the writer of the triads, who, in turn, represents the people as themselves thinking of the social process in such terms. The horn, the cry, the alarm, are deliberately used as stimuli, supplementing the stimuli that would be afforded by mere perception or rumor of certain events or opportunities. The hastening together of the people in public mote or meeting, in its turn, is not only a spontaneous response, but even one that has in it the elements of conscious knowledge that such response is expected, whenever the horn or other alarm is heard.

From these concrete examples we must pass to a broader and somewhat more abstract view. Organization and institutional life must be regarded not as things, but as modes of habitual activity among men. A government, a corporation, a household, is a group of persons regularly doing certain things in certain ways. All therefore may be regarded as phenomena of collective conduct. Conduct, in its turn, as Mr. Spencer has shown in the "Data of ethics," is merely one part of mental activity. It is a consciously controlled aggregate of acts adjusted to ends. The other part of mental activity is made up of more or less unconscious deeds or experiences, including impulsive outbursts and instinctive acts.

One further step brings us back to our fundamental generalization. In the last analysis the entire mental process is an infinitely complex series of responses to stimuli. Not all responses, however, are collective.

Not all are like responses by many individuals to the same given stimulus. But if, as individuals, men were always moved to act in wholly unlike ways; if they were moved to feel differently and to think differently on every subject, their conduct would be without order. There would be a state of affairs far more chaotic than any state of nature imagined by Hobbes or Rousseau. There would be no common interests, no sympathies, no public opinion, no coöperation. All of these things are agreeing responses to common stimuli, and all are of the essential phenomena of society. Society, then, conceived in terms of its fundamental process, may be regarded as a complex aggregate of agreeing responses to certain stimuli that act upon many men in like ways.

All things, however, are relative, and that which from one point of view is general, from another point of view may be special. While like response to stimulus is the general form of social action, it is at the same time a special form of wider processes, constituting universal evolution. In human society, as in the realms of animal life and of vegetation, we see processes of selection and of survival; processes of adaptation; and processes of conflict, resulting in subjugations, exploitations, or transformations of the weak by the strong. And we know that all of these phenomena are modes of that ceaseless equilibration that goes on between bodies highly charged with energy, and bodies undercharged. It is natural, therefore, that we have theories of society in which all changes are baldly stated in terms of conflict, as in the sociological systems of Gumplowicz and Novicow, or as in the Marxian theories of exploitation. These theories are unsatisfactory because they ignore a certain determining, directing, controlling step in the series of transformations. Steam

escaping by the safety valve, and steam exhausted back of the piston head—both are transformations of energy, but they produce different effects, because they enter into different correlations. In society all the forces of nature and of mind work through the correlations of stimulus and of like or unlike response. Every conflict and every selection is cast into a certain form, and the form determines results. Every conflict is a group of responses to stimulus, but it may consist of responses to differing stimuli, or of differing responses to the same stimulus, and the sociological consequences of this difference may be momentous. Again, in society every selection, as truly as every conflict, is a group of responses to stimuli, but it may consist in unlike responses to the same stimulus, or, in responses that as far as they go are alike but are unequal. In the one case we have all the possibilities of toleration and of liberty, notwithstanding disagreement. In the other case we have all the possibilities of subordination and of exploitation.

The great forces, then, of nature and of mind do not pass over into society except as they are correlated or organized in the phenomena of more or less like response. We have still to enquire, however, whether the energizing forces pass into the phenomena of stimulation and response directly, or only through certain antecedent groupings in the phenomena of the physical world. In other words, can we carry our theory of social causation back to firm foundations of physical data, in those groupings of objective fact which, collectively, we call the material environment?

Happily it is possible to answer this question, because it is obvious to even a superficial observer that the

stimuli themselves to which men collectively respond are of two great orders.

The most immediate and the most important stimuli of modern social life are products of past responses to yet earlier stimuli. The very arrangements under which we live, the groupings of human beings, their ideas and purposes, their aims, their ideals, their laws and institutions are ever-present, ever-potent causes of continuing collective action. Of all the stimuli that move men to mighty and glorious coöperation, none can be compared with a great ideal. The ideals of liberty, of freedom, of enlightenment, lift men to-day in gigantic waves of collective effort like resistless tides of the sea. American life pre-eminently has consisted in responses to these ideals. The Declaration of Independence was an ideal, and nothing more ; but the response to it was the successful struggle of a people to establish itself forever among the nations of the earth as a republic of men pledged unalterably to civil liberty. The federal constitution, drafted by Hamilton and his co-workers, was a stupendous ideal. The response to it was its acceptance by thirteen commonwealths, and subsequently the rising of a mighty people to maintain and to consolidate for all time, the indissoluble Union.

But back of all these secondary stimuli, products of past social life, are original stimuli presented to every mind by the presence of fellow beings, by the concrete objects of nature, by the events and the order of nature. These collectively are the environment. As environments differ in fundamental character and in complexity, so differ the original stimuli to which the minds of men respond in collective action, and the possibilities of institutional life.

Accepting the unmistakable distinction between primary and secondary stimuli of social activity, the prime requirement laid upon social theory is revealed. A scientific theory of social causation must show how the primary stimuli give rise to the secondary. Above all, it must disclose the process through which the great ideals arise. It must reveal the successive stages through which the stimuli collectively making up the physical environment create ultimately the stimuli and the responses of idealistic conduct.

Here, then, is our whole hypothesis in restatement. Sociological study is the scientific examination of all those phenomena that proceed from like responses by many individuals to the same stimuli. A theory of social causation may be constructed if we can discover the conditions under which like response is inevitable or possible; the laws of arrangement of combination according to which various kinds of stimuli become operative; and the combinations of human activity that must follow as the extent and degree of like response are more or less. In the theory here presented the ultimate causes of society are assumed to be objectively the great physical processes of equilibration, conflict and selection, and subjectively the elemental appetites and passions of the animate organism. But it is further assumed that physical and mental forces create society only as they are correlated and combined in certain concrete forms. Combined in various types of environment the physical forces are complexes of primary stimuli. As such they determine; first, the character, the extent, and the groupings of primary response; and secondly, the genesis of secondary stimuli. The various correlations of response are the phenomena of conflict, adaptation and

selection in their social aspect. The combinations of response are the modes of coöperation, the great processes of history, and the forms of social organization.

Essaying now to expand this theory into a more intelligible detail, we necessarily begin with an attempt to discover what features of the physical habitat of a human population are significant, and through what channels or groupings of concrete fact they exert their controlling influence upon collective aims and activities.

The earlier theories of the relation of environment to national life and character placed emphasis upon the direct influence of soil, climate and topography upon mental and institutional life.

Montesquieu hardly got beyond this simple view of the problem. He attributes a relatively great boldness to the inhabitants of cold climates, and to boldness he attributes frankness and a lack of suspicion and cunning. To the enervating influence of great heat, and the deliciousness of rest in a hot climate, he attributes the belief of the Hindoo that "repose and non-existence are the foundation of all things, and the end in which they terminate." From these temperamental effects of climate Montesquieu thought that he could derive systems of laws and institutions. His observations, nevertheless, were keen and significant, and doubtless much important scientific work is yet to be done in following out the suggestions in which "The spirit of the laws" abounds.

Buckle, perceiving that the action of environment upon national life is more complex than Montesquieu represented it, laid emphasis upon those influences of nature that develop on the one hand the emotional, on the other hand the intellectual habit. Regions in which nature is uncertain, violent and destructive, especially

where earthquakes, volcanic catastrophies and tempests abound, inspire terror and superstition, and thereby unfit the mind for scientific research and for the systematic conquest of the external world. Regions that are tractable, having seldom more startling occurrences than the regular succession of seasons and the relatively mild storms of the temperate zones, awaken an intellectual interest; and by suggesting a constant order in nature, they lead the mind on to scientific comprehension. Buckle also made the distinction between primary and secondary civilizations, and drew attention to the exceeding importance of the relation existing between any secondary civilization and that environment to which we must apply the adjective "social" rather than "physical."

Spencer, in the first volume of his "Principles of sociology", comprehensively reviews the influence of climates and topographies upon the emotional and the intellectual natures of men, and he calls especial attention to the relation of the flora and the fauna to the possibilities of social evolution. He lays chief stress, however, upon the sociological environment, since it is in the relation of a tribe or a nation to its stronger or weaker neighbors that the causes determining its type of organization as military or industrial, seem to him to be found.

In those later studies that have taken the form of an economic interpretation of history, it is an indirect rather than a direct action of the environment that finds recognition. Situation and resources mould the social organization; first, by determining the character of the predominant industries; and, secondly, by determining the prevailing form of property, as real estate or free capital.

The theory that I wish to submit differs from all of these. I shall try to show that the really significant phenomenon is found in the relation of the physical environment to the composition of its population. My propositions are, first, that the character of the environment determines the composition of a population as more or less heterogeneous, more or less compound; and second, that the composition of the population determines its mental characteristics, its potentialities of coöperation, its capacity for progress, its ideals, and its organization as more or less democratic.

To develop these propositions, let us begin with a phenomenon very simple, very obvious, yet very far-reaching in its consequences. A physical environment has, or it has not, the power to attract inhabitants to itself and to keep them. In America we are witnessing the most remarkable example in human history of this immediate relation of population to environment. By hundreds of thousands men and women from the older lands are drawn here by the bounty of nature, underlying that varied economic opportunity which this nation affords to its people. Quite as striking as the mere numbers of immigrants to America, however, is the varied composition of our foreign born population. Every nationality is included. But the geographical distribution of the foreign born shows a marked difference of one region from another in degree of compositeness. The North Atlantic division is heterogeneous in the extreme. Thirty-six per cent of its foreign born are of English-teutonic blood; twenty-nine per cent are Celtic; eight per cent are Celto-latin, nine per cent are Ibero-latin, and seventeen per cent are Slavonic. The North Central division has an overwhelming preponderance of Teutonic stocks. Seventy-one per cent of its

foreign born are of English-teutonic bloods. Only twelve per cent are Celtic; only three per cent are Celto-latin, less than two per cent are Ibero-latin, and ten per cent are Slavonic.

Environments are of two fundamental types in respect of their power to maintain society; those that are so poorly endowed with resources that they can maintain and attract only relatively small numbers of inhabitants, and those that, being richly endowed, support large populations of the native born, and tend to draw a large immigration from elsewhere. Each of these types of environment, in turn, presents two well-marked subdivisions: the isolated, or difficult of access or of egress; and the accessible, a land of ports and open ways, through which the currents of population may easily flow.

The composition of the population can by no possibility be the same in these four types of environment. That which is characteristic of one is unattainable in another. And because the composition of the population is in each case of a certain necessary description, there is a corresponding make-up of the social mind, a certain range of possibility in the succession of historical events, and a certain necessary order of social institutions.

In the environment that is both poor and isolated population is not only sparse, but it is relatively simple and homogeneous in composition. It is maintained only by its birth rate, and it increases only if its birth rate is in excess of its death rate. It is a genetic aggregation. Extreme examples of this environment and of the structure of its population are afforded by the coasts of Greenland, the Aleutian Islands, the southern ex-

tremity of South America, and the interior regions of Australia.

In the environment that is poor but accessible, or, what in this instance is more to the point, admits of easy egress, the population again is a genetic aggregation. The attractions and inducements are not sufficient to bring immigration. But neither are they sufficient in all cases to keep the men born within its borders, and, escape being relatively easy, many of the most energetic emigrate to better lands. Here, in the concrete, the process of selection is seen going on in the form of response to stimulus. The resources of other environments in some degree awaken the desire of all the inhabitants of the impoverished land, but only those that are relatively enterprising and energetic are moved to better their condition. The result is a gradual deterioration of the stock remaining in the land. It is bred from the leavings that have been incapable of efficiently responding to the stimulus of larger opportunities. The most interesting modern examples of such environments are those extensive tracts of upland or hill country in the North Atlantic states, especially in the New England states, that once had prosperous farming populations, but now are inhabited only by unambitious families presenting the unmistakable marks of degeneration.

The third type of environment is that which is both rich in resources and relatively isolated or inaccessible. The interior of the Arabian peninsula, the Hawaiian Islands, the Samoan Islands, and the islands of Tahiti, are good examples. So also are the uplands of Mexico and Peru. Here again the population is a great kinship, a genetic aggregation. It is relatively dense. The birth rate is high, and every inequality of energy

or ability counts in the struggle for existence. The people alike respond to the bounty of nature and develop those simple forms of economic activity that often are sufficient to create a fair degree of prosperity. The isolation of such a population while it lasts determines the whole course of social evolution, but it is relative. Sooner or later, or perhaps repeatedly at long intervals, it yields to migration. An increasing pressure of the native born upon the means of subsistence at length forces some of the more vigorous elements to break through confining barriers, and as conquerors, or otherwise, to seek distant homes; or the natural resources and the acquired prosperity enjoyed by the inhabitants become a stimulus of sufficient power to tempt distant populations to invade and exploit.

There remain environments of the fourth type, richly bountiful in resources and so accessible that men may flock to them from all quarters of the world. Such are the great river valleys of the Nile and the Euphrates, seats of the most ancient civilizations; of the Po, the Danube and the Rhine, highways of the nations from an immemorial past; of the Seine and the Thames; and, in our own land, the Mississippi basin. Such also are many favored coasts, abounding in inlets and sheltering ports. In all such environments population must sooner or later be composite, and the more so if their resources are not only abundant, but also varied.

The composition, however, is determined in the long run by two co-operating processes. Aboriginal populations are overrun by invaders, who come not as individuals, but as organized bands, or armies equipped for conquest. Populations that have attained a measure of economic advancement are now and again overrun by hosts of ruder people that have been dwelling in rela-

tively unkindly habitats. Further conquests also may follow, after civilization has been attained by both the invaders and the invaded, if the civilization of the invaders is still of the military type. When, however, industrial civilizations of the modern type have been reached, further migration is a movement of individuals.

It happens, therefore, that with few if any exceptions the populations of the most favored environments are both compound and composite; compound as being made up of successive strata of conquered and conquerors, and composite, as being made up of immigrant individuals scattered among the native-born. In time all of these elements are in some degree amalgamated. The amalgamation of invaded and invaders, however, is determined largely by the physical characteristics of the region itself. If they are such as to tempt the invaders to scatter themselves throughout the land as local overlords, while at the same time maintaining a general distribution of the invaded or conquered, the possibilities of amalgamation are far greater than when for any reason either stratum is geographically concentrated. This seems to have been the history of the thorough-going amalgamation of Celtic and Teutonic elements in the midland and western counties of England.

When an immigration of individuals begins to bring important additions to a compound population, the foreign-born element itself may be more or less composite. And this circumstance again is determined by the character of the physical environment. If the natural resources, while great, are all of one kind, and especially if they are predominantly agricultural, the inhabitants are far more homogeneous than if the resources are in mineral wealth, or, above all, if they are varied, including commercial and manufacturing oppor-

tunities. Thus, we have seen that the foreign-born population of the northern Mississippi Valley is predominantly Teutonic, while that of the North Atlantic states is composite in the highest degree. Practically, however, an environment of homogeneous resources is usually but part of a larger geographic unity that is occupied by one entire people, and that in the aggregate includes resources of varied kinds. This integral geographic unity inevitably has a population that not only is largely congregate, rather than genetic, in origin, but that also is in a high degree composite.

Now we have to turn from predominantly physical phenomena to consider the mental resemblances and differences, the sympathies and antipathies, the agreements of thought and purpose, the concerted volition, the forms of co-operation, and the social bonds that arise in various populations.

Peoples dwelling in environments of the first two types that have been described are mentally, as well as in blood, homogeneous. They have been subjected to like experiences, and have developed like qualities of nature, and like habits of thought. Undisturbed by the external world, they lead uneventful lives. There is among them a strong sense of kinship. If natural resources are sufficient to sustain a fair degree of comfort, and degeneration through emigration of the more energetic individuals has not yet begun, the people are a sympathetic, kindly folk. They may not be keenly aware of their mental homogeneity because nothing happens to call attention to such possibilities of difference as exist in populations of the composite type. Co-operation is spontaneous, and the chief social bonds are kindliness and neighborly helpfulness. The social organization is simple.

The inhabitants of an environment of the third type are homogeneous in blood, but because population there is relatively dense, individual differences in energy and ability are of some importance, and there are resulting inequalities in the responsiveness of the entire people to given stimuli. Certain persons lead, others follow. There is a tendency to differentiate into dominant and subordinate classes. There are marked differences of intellectual power, yet as a whole the people has a consciousness of kind. It is sympathetic, and engages in spontaneous forms of coöperation. Its social bonds, however, include allegiance to leadership, and the contagious forms of popular emotion.

In environments of the fourth type every variety of mental difference is found, and yet it is entirely possible, in fact usual, that mental heterogeneity is less than ethnic. Men of different bloods may have minds and interests alike. Herein lies the possibility of assimilation, which tends continually to overcome original differences in a population of miscellaneous ethnic elements. Commonly also, assimilation—which is purely a psychological process—goes on more rapidly than amalgamation,—the physical commingling of bloods. Furthermore, it is entirely possible that mental differences in a mixed population shall be subordinate to great unifying feelings, great purposes, or great ideals, and therefore possible for men otherwise differing to unite their efforts in large coöperative endeavors.

Among these mental and practical possibilities the various aspects of co-operation are of chief interest to the sociologist and the historian, and three of them are of pre-eminent importance. One is the extent to which co-operation is possible among any given people. An-

other is the degree to which co-operation is free and democratic, as contrasted with a co-operation that is coercively enforced by an autocratic power, monarchical or oligarchical. The third aspect is the extent to which co-operation is, on the one hand, mob-like, unreasoning in its form and spirit, or, on the other hand, deliberative and rational.

The key to all problems presented by these varied aspects of co-operation is found in that composition of the population that we have been examining. The people that is mentally homogeneous can co-operate in ways, and, above all, in a spirit, impossible to a people that is heterogeneous.

Certain corollaries derived from the fundamental principle of like response must guide our study. These corollaries are in their nature abstract propositions. They may as well be stated concisely in all their unattractive bareness, because, like mathematical axioms, they gain nothing from attempted translation into concrete terms.

In a homogeneous group a majority of all individuals may alike respond to varied stimuli, and the stimuli are not necessarily powerful. The co-operation of such individuals is spontaneous. Their organization may be democratic in form and spirit.

In a homogeneous group the like responses of many individuals to the same stimulus are not greatly unequal in degree. Consequently, there is no sharp division of the group into two classes, composed respectively of those persons that have initiative, and those that merely assent: the classes, namely, of the leaders and the followers. Any individual may at one time suggest and lead, at another time yield assent.

In the homogeneous group there is a substantial

equality of energy and ability, and, consequently, but little transformation of the weak by the strong. There is no exploitation.

Therefore, in the homogeneous group there is a strong and inclusive consciousness of kind.

In the heterogeneous group a majority of all individuals can respond in like ways to comparatively few stimuli, and these must be powerful.

In the heterogeneous group more individuals are alike in instincts and in motor impulses than in sympathies, and more are alike in sympathies than in intelligence. In this group, therefore, more individuals can alike respond to stimuli that appeal to motor impulse, or to feeling, than to stimuli that appeal to intelligence. The stimuli that most powerfully appeal to motor impulse are danger and menace. Among those that appeal to instinct and feeling both, are bribe, gift, patronage and payment; while the stimulus that most strongly appeals to feeling only, or to states of mind in which feeling is predominant, is the impressive power of a strong personality.

In the heterogeneous group there is inequality of energy and of ability. Responses to any given stimulus, therefore, even when otherwise alike, are unequal in degree. Certain individuals take the initiative, and others accept their guidance. The population is differentiated into leaders and followers.

In the population so differentiated there is an equilibration of human energies that becomes a transformation of the weak by the strong. It may take the form of subjugation, or of exploitation. This happens not only in the relations of differing races to one another, but also throughout the social system,—in ecclesiastical

organization to the advantage of the priesthood, in industrial organization to the advantage of the entrepreneur or the walking delegate, in political organization to the advantage of the boss and his henchmen.

In the mentally heterogeneous population there is either no general consciousness of kind, or it is weak. If the population is compound there may be a strong consciousness of race or class differences.

From the foregoing principles it follows that a population that is heterogeneous in blood, ideas and interests to an extreme degree cannot spontaneously combine its efforts in co-operative undertakings. It acts collectively only in response to some extraordinary stimulus, or to one that appeals only to the relatively low instincts. Fear of the torture, imprisonment, or death that a conqueror may inflict, may be the only stimulus to which all of the extremely diverse elements of a compound population can respond, and the resulting social organization is then despotic. When, however, a large measure of assimilation has been achieved, it is possible for elements still diverse, though not in an extreme degree, to respond to other stimuli than danger, and to establish systems of organization that, while still monarchical or oligarchical in form, are not despotic in character. The governing power may offer benefits that strongly appeal to the masses governed, or it may have acquired a religious sanctity that impresses,—that derives strength from associated stimuli of belief and dogma. The chief stimulus, however, that under the circumstances assumed is efficient in achieving organized co-operation, is the impressive power of a strong personality. The government evolved may be dignified as "Caesarism," or irreverently described as "boss rule," but it is all one in essence. Generalizing, we may say

that the heterogeneous community is normally autocratic, or oligarchical in organization. If the leaders can inspire fear, their rule is despotic. If they can inspire veneration, their rule is authoritative. If they can inspire admiration and confidence and confer favors, their power is the rule of "the boss." Historically, the co-operation that has in it a large element of coercion, is likely to be the first one to arise in such a mixed population as results from migration, or the colonizing of a new land. This stage is likely to be followed by one of oligarchic or of personal rule. Very slowly and very late in the history of any people or organization does it become thoroughly democratic in spirit and in form.

Nevertheless, from the moment when the assimilation of miscellaneous elements begins, there is likely to be an evolution of an entirely new order of stimuli, far higher in character than the primitive stimuli of danger, menace and bribe; higher even than the stimulus of strong personality; and yet, like these, powerful enough to awaken the responses of differing natures. These new and higher stimuli are ideals, and it is these that presently become a factor of chief importance in the higher forms of social causation. It is through responsiveness to ideals that it becomes possible for a people to combine three somewhat antagonistic conditions in their social evolution, namely: first, cohesion, which, in the last analysis, is a continuing agreement of response to common stimuli; secondly, variation and progress, which are possible only when the individual units making up a population are not too much alike; and thirdly, increasing freedom of individual life, which is possible only when cohesion can be maintained in the absence

of coercive stimuli, and notwithstanding the divergencies inherent in individual differentiation.

Social ideals arise in the minds of exceptional individuals who perceive that their conceptions of their fellow men, like their ideas of the external world in general, fall into intellectual arrangements or combinations that differ from objective arrangements in the world of reality. Among such combinations are some that seem to the minds that make them preferable to the combinations existing in fact. These mental complexes become ideals of a social order that appeals to imagination and desire. Communicated by their creators to their fellow men they oftentimes have the power to call forth persistent effort to transform the external order of things into a realization of the ideal. All history is full of examples of men mentally unlike in most respects, but alike in their interest in a common social ideal. This is because the ideal is a highly composite stimulus appealing to motor impulse, to feeling and to imagination, as well as to reason. It happens, therefore, that men who could be organized only through the agency of a great personality, if the alternative stimuli were no more than ideas or plans that appealed to the intellect alone, can sometimes be organized by a great ideal, even more successfully than by authority, or by the boss.

With these principles and possibilities before us, we now ask how they are combined in the historical process, inquiring, as we proceed, how ideals emerge, and how they transform the coercive and authoritative modes of co-operation into the liberal and the democratic.

For the purposes of this paper I shall restrict myself to a consideration of three great social ideals; those, of unity, of liberty, and of equality.

Again we turn our attention to the composition of the population, for herein are to be discovered the conditions that determine the evolution of ideals and the great stages of historical process.

A social group of any kind or dimension, let it be, if you please, a trade union, a township, or a nation, may be conceived as having so many elements of unity that it is easy for individuals that agree in their thoughts and purposes to have their own way with such of their fellows as differ from the prevailing type. Such a mass of agreements entering into a collective will, is the fact of collective sovereignty in its most general psychological aspect. In any community where the power and the wish of some section of the population to rule has been developed, differences and disagreements excite antagonism, distrust and anxiety. It is perceived that there is strength in unity, and the passion to make all men within the community more alike begins to be consciously felt, and to make itself a power. The ideal of unity is carefully formulated, and is persistently kept before the minds of all members of the group. If the group is a voluntary organization, like a religious denomination, a trade union, or a political party, an attempt is made to persuade or to compel all its members to believe the same things, and to conduct themselves in like ways. A creed, a body of rules or a platform is imposed, and orthodoxy or regularity is insisted upon as of primary obligation. If the society is a nation, attention is fixed upon other modes of unity also. The territory itself that the people occupies becomes an object of new interest. Adjoining geographical areas, that by reason of topographical features naturally belong with the domain already possessed are covetously regarded, and the attempt is made to

conquer or otherwise to annex them. Adjacent populations having like interests and traditions, related in blood, and speaking allied languages, are viewed as properly belonging to the community that would absorb and dominate them. Within the population itself the amalgamation of bloods is watched with interest, and the process of mental assimilation with yet more concern. Policies are adopted to hasten on the change. One language must be spoken throughout the whole domain. One religious faith must be embraced by all. One consistent economic policy must be followed. One standard of conduct and of legality must be established for all citizens. These policies are a part of the great nation-making plan of unification. If successful, the passion for homogeneity seizes upon the whole population. An ideal that has at first taken possession of the ruling classes, has gradually awakened the enthusiasm of a people. The ideal itself has been suggested by changes quite unconsciously originating. Amalgamation and assimilation necessarily forecast the kind of community that must exist if they go on to completion. Co-operating with this suggestion is a consciousness of the exceeding difficulty of maintaining social cohesion where great differences of blood and interest exist.

Thus it is the composition of a population under circumstances of diminishing heterogeneity that gives rise to the first great ideal—that of unity.

Perfect unification, complete homogeneity, would inhibit further progress; but the perfect unification of an arrested civilization is rarely attained. So long as there remain in the population many diverse elements freely communicating with one another, and still undergoing assimilation, the conditions are present for progress. No scheme of unification ever quite destroys the restless

individualism of the rational mind. Unifying policies, involving as they do a large measure of coercion, much repression of individual initiative, and much thwarting of ambition, goad the more rebellious spirits into open opposition, which can be repressed only if all heretics and disturbers of the political peace can be exterminated. At the same time, by putting an end to many conflicts between independent states that have at length been brought into an inclusive national or imperial organization, the unifying policy releases energy to expend itself in commercial enterprise, in public agitation, in destructive criticism and perhaps in overt rebellion. Under these circumstances the stimulus of authority begins to lose its power, and the ideal of unity ceases to impress the imagination with the old time vividness. New ideas take shape in an ideal of liberty, which appeals with increasing force to men of every blood, of every degree of culture and of economic condition. The broadening response to this new stimulus in time creates the great policies of liberty, including the establishment and protection of individual liberty by forms of constitutional law.

But just as the policy of unification when pressed too far creates reactions against itself, so also does a régime of unlimited liberty. It creates conditions of great and increasing inequality. The energetic and the enterprising, unrestrained in their activity, acquire control of the machinery of government, of the administration of law, and of economic opportunities. Enjoying perfect freedom of contract, they organize the industrial system to secure the utmost increase of wealth and its utmost monopolization. Having through liberty obtained power, they proceed by all possible means to monopolize liberty itself, taking care to maintain those

legal forms of freedom that protect property and enterprise, and that encourage competition among wage-earning laborers, while more than willing to restrict competition among themselves. An increasing density of population intensifies the struggle for existence. Class differentiation is hastened, and presently social cohesion is threatened through the exploitation of the weak by the strong. From the exploited comes the demand for wider opportunity and a larger share in material prosperity. It is perceived by the intelligent that if a disruption of the community through a revolt of the discontented, or a general revolution, is to be prevented, some limitation of the liberty of the strong to curtail the liberties of the weak must be imposed, and that practically this means a certain limitation of liberty by equality. It is under these circumstances that the ideal of equality arises, and that its influence over the multitude creates the democratic movement, as that term is understood in modern times.

Certain conditions, however, must be fulfilled before this ideal can be converted into reality. We have seen that democracy is possible and normal in a homogeneous population. It is possible also in a population that is otherwise heterogeneous, if there is a practically universal belief in the superiority of democratic forms; if the democratic ideal is a strongly dominant stimulus, calling forth the habitual response of nearly all men. Under these conditions there can be democracy, at least to the extent of majority rule.

Democracy, however, is not necessarily more liberal than monarchy or oligarchy. In recent years we are witnessing abundant proofs that in its denial of the liberty of the individual a majority may be as despotic as an Italian tyrant, or a Turkish sultan. Democracy

can be of the liberal sort under any one of three possible conditions. The first exists when the people are homogeneous and equal. Co-operation then is spontaneous, and democracy is the normal form of organization. The second exists when an entire people, though otherwise heterogeneous, cherishes the ideal of liberty, and is sensitively responsive to it. The third exists when extreme inequalities of condition are being modified by an equilibration of energies in which the strong, instead of exploiting the weak, are succeeding through policies of helpfulness and justice, and by education, in developing and lifting them up to a higher plane of social efficiency.

Passing over the two conditions first named, we may profitably linger for a moment upon the process of equilibration through education and justice. It begins when society has become complex enough to pass from policies of unification to those of liberalism and democracy. It is a common error of popular sociological thinking to conceive of philanthropic activities as a conscious combating of that order of nature which has its sources in physical phenomena, and which assumes in the organic world the form of the struggle for existence. In reality the philanthropic process is inevitable, and happily, here and there a student of social evolution is beginning to apprehend its nature and causation.

Mr. Benjamin Kidd, for example, has attempted to prove that all real progress has its cause in a fact that he calls projected efficiency. Those organisms and those institutions survive, he tells us, that have potential qualities that will be realized in future race development. Mr. Kidd has in this hypothesis taken hold of a great truth, but I think that he has not stated it in

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the clearest and most accurate way. We cannot say that an organism survives because of qualities or peculiarities of structure that would give it an advantage in another environment, or at some future time. It does not maintain itself in the struggle of the here and now because it has potentialities that will enable its offspring to survive in the terrestrial elsewhere and hereafter. Nevertheless, it is an elementary truth that certain organisms develop surplus energy, and that surplus energy sometimes enables them to survive under circumstances that would bring death to creatures less generously endowed. Now it is these organisms endowed with surplus energy that transmit to posterity a rich legacy of ability, or, in certain instances, convey to fellow-creatures of their own generation a freely given help. Of all the higher organisms, and especially of all successful individuals in human society, it must be said that any advantage that they enjoy they owe to an efficiency that was transmitted to them by their ancestry, or freely made over to them by contemporaries endowed with surplus energy that has been expended in socially helpful ways. Of all the modes of socially distributed surplus energy, the most important are sympathy and its allied elements in the consciousness of kind. Given this force, the transformation of the weak by the strong necessarily becomes to some extent an uplifting, instead of an exploitation. Given the equilibration of energy through uplifting, there is a necessary growth of equality, and an increasing possibility of successful democracy of the liberal type.

In communities of each type that has now been described there are characteristic social bonds. They are products of all the factors to which we have given con-

sideration, namely: the character of the environment, the size and composition of the population, and its degree of homogeneity, the dominant stimuli to which it responds, and the form of its co-operation.

In the small and isolated population, ethnically and mentally homogeneous, there is a strong consciousness of kind, and the community is held together largely by acts of imitation and of kindness.

In the small and heterogeneous community occupying some especially favored spot within a larger national domain, as for example, a rich metalliferous tract to which men that were strangers to one another have come in pursuit of material well-being, the sympathetic element of the consciousness of kind, and other bonds that hold the kindred folk together, are relatively unimportant. Through conflict between man and man a general condition of toleration is brought about, and a bond of spontaneous justice is gradually supplemented by good will and neighborly helpfulness. In such a community there is also spontaneous allegiance to daring leadership; and a more or less contagious emotion may at times become a powerful social bond.

In the compound population created by invasions and conquests, the power of the conquerors to inspire fear or reverence, and the obedience or loyalty of the conquered, are the chief social bonds. These are permanent, however, only if the character of the country, the economic opportunities, and the opportunities for adventure, are not such as to lead to a dispersion of the conquerors and a disintegration of their own social cohesion, as happened throughout large parts of the Roman Empire, and especially in France, along the Rhine, and in northern Italy after the barbarian invasions. When such dispersion occurs the political chaos and incessant petty con-

flict that follow result in the creation of bonds of intrigue and conspiracy. When, however, conflict has been carried far enough to eliminate elements excessively unlike and unequal, conspiracy gives place to relations of contract. In the political system a merely political sovereignty is developed into a legal sovereignty. Finally, when through assimilation a complex and highly differentiated population has become so far homogeneous in mental constitution and in culture that common ideals are cherished, especially ideals of liberty and of enlightenment, the chief social bonds may consist in patriotism, fidelity, honesty, and unselfish social service.

Each type of community gives rise to a certain type of social theory, and herein we have a final and especially interesting disclosure of the relation of environment to the intellectual processes when the phenomena collectively are looked upon as groupings of stimuli and response.

The kindred community, living in an isolated environment, can have only natural genesis theories of social origin. The community is pictured—as in the creation myths of our North American Indians—as sprung from a totemistic and matriarchal ancestry; or—as in the social traditions of the Semitic and Aryan stocks—as descended from a patriarchal family. In such communities also, the only conception of the psychological ground of the social relation itself that can be entertained is some form of the idea of natural brotherhood, a primitive germ of the notion that may afterwards be developed into the so-called sympathy theories of society.

In the simple and homogeneous communities that are sometimes brought together by congregation when the economic opportunity attracts men of one kind only, as

for example, fisher folk, or woodsmen, or farmers, there can arise only those consciousness of kind theories that are reflected in the proverb, "birds of a feather flock together," and natural justice theories of an elementary sort.

In the heterogeneous society that is formed by a congregation of miscellaneous elements alike in little except a bold and adventurous disposition—such a society as was seen along the Ohio and the Mississippi rivers in the days of the voyagers and flat-boatmen, or, at a later time among the ranchmen of the great plains—where kinship ties count for nothing, and one man is as good as another, the only social philosophy possible is the brutal theory, uncritically accepted, that might makes right; but when, later on, conflict has established an equilibrium of strength, and toleration emerges, the philosophy of might slowly gives place to theories of natural justice.

Where a wide and bountiful environment has been conquered by invaders, and the invaded are being reduced to subjection under the hammering of a compact invading host, the only native theories of social causation are those of race or class conflict, and of political sovereignty. If, subsequently, the invaders disperse, and as a class become disintegrated, as the Normans did in the days of Stephen, and as the Lombard invaders of Italy did, and a struggle of every group for itself, or even of every man for himself within the group, supervenes, until intrigue and conspiracy, such as prevailed in the decaying years of the feudal régime, reduce society literally to that state of nature that was described by Hobbes, no other social theory can be conceived than that one which was set forth by Machiavelli in the pages of "The Prince." When,

however, out of such chaos a new social order emerges through an elimination of excessively antagonistic elements, the way is prepared for a broader understanding and agreement. It is then that contract theories and legal sovereignty theories arise to explain the new condition.

And at last, when the inhabitants of a compact state or of a great nation have undergone much assimilation, and their consciousness of kind has become both moral confidence and a comprehension of mind by mind, and when the ruder social bonds of obedience and justice have been transmuted into fidelity, honor and social service, there can arise a great variety of complicated explanations of so complex a social system. They may include evolutionist theories, psychological theories, developed forms of the contract theory, and, above all, idealistic theories expressive of the possibility of remodelling society in accordance with some Utopian plan. It was after the age of Pericles that Plato dreamed "The Republic," and in the Macedonian empire that Aristotle created "The Politics."

A THEORY OF SOCIAL CAUSATION DISCUSSION

ALBION W. SMALL: The substance of what the sociologists are likely to say about the present argument will be in the way of ratification and emphasis. The paper is a masterly survey of the whole field of sociology with the exception of its teleological section. Its main divisions are, first, an introductory account of the function of sociology; second, proposal of a primary working hypothesis—like response to stimulus; third, proposal of a secondary working hypothesis concerning the physical side of social causation, namely, the effect of environment upon the composition of the population; and fourth, suggestions of a programme for interpreting the psychical side of social causation. The paper is in many ways an advance movement in sociological thinking. It seems to me to justify its author's tentative claim. It deserves to exert the constructive influence which I predict that it will have on American thought in our field.

Having the paper as a whole in mind for illustration, rather than specific points in its contents, I will confine myself to a few generalities. A decade ago at a meeting of the American Economic Association in New York, one of our most respected economists frankly declared that, if he could have his way, no sociologist would ever be admitted to a university faculty without permission of the economists. Meanwhile, some of us have found the monotony of life not a little relieved by watching the process by which this genial dogmatist has triturerated himself boldly into a most extreme form

of sociology. I want to go on record with the prediction that, in the lifetime of children already born, it will become impossible for anyone to be appointed to the humanities division of the faculty of any first-rate university or college, unless he can creditably sustain an examination in general sociology. I further predict that men of my own age will live to use such terms as ethnologist, historian, economist, political scientist, sociologist, without their present divisive and exclusive connotations.

We shall perceive that if we are thoroughly intelligent about our work, we find it to be concerned not with different material, but with different relations of the same material. We are not one of these specialists to the exclusion of the other. We are one of them primarily and provisionally, but the nearer we get to the real meaning of our material, the more are we all of them ultimately and essentially, in proportions that reflect the real connections of the relations we try to interpret.

The sociologists are actually reaching results that their colleagues in the other departments of human science cannot afford to neglect. These results are not yet to any considerable extent settled formulas of explanation. They are rather, as Professor Giddings has pointed out, apperceptive categories which mark greater or less removes of intelligence from naive conceptions in mere terms of time and space. To emphasize further what we mean by this, I may say it is simply an accident that sociologists have been supposed to be merely a sect of economic schismatics. On the contrary, the relations between the sociologists and the historians are much more fundamental and significant than those with the economists. The sociologist regards the economic

factor in the human process as only one strand in the cable of experience, while the task of the complete thinker is to run back all the strands, to explain their sources and how they are woven together, with the use of the whole after it is woven. Now it may be said that with the rise of the Austrian school economic theory virtually came into line with the method demanded by the sociologist. Carl Menger told me last summer that in his opinion the phrase "Austrian school" has no longer anything but a purely historical meaning. "All that I ever contended for," he said, "has virtually been assimilated by every progressive economist, and there is no longer any reason for distinctions on that line." The Austrian school really fought the decisive battle for the psychological factor among economic forces. The economic element in experience thus takes its place with all the other elements to which the psychologic interpretation is applicable.

But with the historians the case is different. Even with your permission, I might not dare to express myself fully if what I want to say had not virtually been anticipated by the president of the Historical Association in his address at Philadelphia last year. He would probably regard it as a distinct grievance if it were intimated that he is a sociologist, but there are signs that he could qualify for the guild. I am also informed that the same thing is evidently true of the president of the Historical Association this year, as shown by the paper read at the opening session of this meeting.

In the first place, the historians do not seem to be agreed that their function involves any interpretation at all. To be sure, it is historical hearsay that all modern historical writing is from the "social point of

view." Nevertheless, from the sociological standpoint, it is a constant question whether the historians have so much as heard that there be any social point of view. The social point of view is that every event in human life, whether the actors get a glimpse of its meaning or not, is really a part of a co-operative process, in which each detail has a meaning that comes from its connection with the whole. This viewing the incident, whatever it is, as a partial expression of the whole, with consequent discovery of the whole in the incident, and of the incident in the whole—this is the essence of the social point of view. Men who write history from any other outlook are simply newspaper reporters whose items are out of date.

But, beyond this fundamental difference, the quarrel of the sociologists with the historians is that the latter have learned so much about how to do it that they have forgotten what to do. They have become so skilled in finding facts that they have no use for the truths that would make the facts worth finding. They have exhausted their magnificent technique in discovering things that are not worth knowing when they get through with them. These discoveries may be taken up by somebody else and brought into their meaning relations, but history, as it is mostly written to-day, does not come within sight of those relations. The historians are locating cinders on the face of the glacier, but they overlook the mountain ranges that carry the glacier.

When we once start to study human affairs, there is no stopping place, on any other ground than confession of mental incompetence, till we reach answers to these questions:—What are the essentials in human relations? In what varieties do these essentials appear

under different circumstances? How do we account for these universals and their accidents? What pointers does this knowledge give us about our own conduct?

In other words, we have not covered the first stage of social self-knowledge until we have summed up historical experience in terms of the perpetual rhythm of development, accommodation, and satisfaction of human interests; or, as Professor Giddings prefers to say, in terms of stimulus and response. The sociologists can do little toward this interpretation, that is, their perspective and range of induction would be viciously incomplete, without calling on the historians; but the historians' results are abortions if their growth is cut off before they pass into the stage of sociological generalization.

Referring now to certain details of Professor Giddings' argument, I would say that all possible difference of opinion among sociologists about its spirit and the strength of its main contention is a negligible quantity. His positions would have to be much less important than they are, however, if they could be accepted without reserve. In my own opinion, his primary hypothesis—"like response to stimulus" or "consciousness of kind"—is inferior in importance to his secondary hypothesis of the effect of environment upon population. The former seems to me much less ultimate and much less fruitful than to Professor Giddings. I am bound to confess, however, that other sociologists have taken up his idea and have agreed with his estimate rather than mine. To tell the truth I am sometimes worried by a suspicion that in my mental makeup there is some sort of plagiaristic parasite that leads me to think an idea has always been familiar after someone has made it

plain. Perhaps that may account for my position in this instance, but since Professor Giddings first suggested this primary formula it has seemed to me that it either meant something which we had virtually taken for granted, and which we might accept without debate, or that it meant something more which would not prove to confirm its author's estimate.

Sociologists have not yet straightened out their ideas about popular misconceptions of physical science. We assume that something has been done which has not, and we are ambitious to duplicate that triumph in social science. We want to find the one "force" or the one "principle" that accounts for social history, just as we suppose the force of "evolution" or the principle of "natural selection" accounts for physical history. But in the sense in which we use the word, evolution is not a "force," it is a method, and an infinitely undiscovered method at that. "Natural selection" is not a "principle," it is a process, and the biologists to whom I go for information instruct me that they are just beginning to make out the rudiments of the process. What Lamarck, Darwin and Wallace generalized, and what Spencer phrased, is really the problem itself, not its solution. The scientists who are working on the philosophical frontier are busy in their approaches to the solution of the problem which these pioneers most successfully stated. Now, if Professor Giddings' generalization "like response to stimulus" or "consciousness of kind" carries any of this idea, that it identifies a force or principle that moves the world, I am unable to see the formula in that light. If, on the other hand, the phrases are merely convenient generalizations of the problems which Professor Giddings brilliantly attacks with this secondary hypothesis, and then with his

psychological propositions, they serve a purpose, yet hardly of the capital order which their place in the argument must be understood to imply.

Before closing, I would express my admiration for the insight displayed in the third and fourth divisions of Professor Giddings' paper. I believe he has there reached some cardinal contributions to sociology. I cannot refrain from pointing out once more in this connection, however, that there is a vast void, which nothing but a new order of historical work can fill, between our present ignorance of actual social reactions and confirmation of such theories as Professor Giddings has proposed. We need to know, in the concrete, just how human interests have combined with each other in every variety of circumstance within human experience. There has never, to my knowledge, been a fairly successful attempt to schedule efficient human interests in general, till Ratzenhofer did it less than ten years ago in *Das Wesen und Zweck der Politik*. With this work sociology attained its majority. Henceforth all study of human relations must be rated as provincial, which calculates problems of life with reference to a less comprehensive scheme of interests than his analysis exhibits.

The sociologists are settling down to as strict and positive analysis of the sort of thing that takes place in human reactions as the chemists have carried on in their sphere. Men in other divisions of labor within the social sciences cannot afford to leave the sociologist out of the account. Professor Giddings' position is impregnable, that we have something to say to each other, and that each of us needs the other's help for the completion of his knowledge.

CHARLES HORTON COOLEY: In discussing this notable paper I wish to confine myself to only one of the fundamental questions upon which it touches, namely, that of the nature of history as regards cause and effect; and my aim will be to distinguish three ways of thinking about it; first, the materialistic, second, the idealistic, third, what I would call the organic. In the preference I shall avow for the last, I hope that the distinguished author of the paper will, on the whole, agree with me, though I am not sure that he does not, here and there, show a certain leaning toward the first.

The materialistic view assumes that physical conditions are in some sense original and ultimate causes of the movements of history; that they are primary, as compared, at least, with such complex products of the mind as institutions and social ideals, which are held to be secondary or derivative, though perhaps of equal immediate importance. The best-known representative of this way of thinking is Herbert Spencer, whose whole philosophy assumes the primacy of material facts and aims to show how mental and social facts grow out them.

The primacy claimed for material elements must, I suppose, be a primacy either in time or in logic. As to time, I am unable to see from what I have learned of history and anthropology, that the physical aspect of life came before institutions and ideals, or was, generally speaking, of relatively greater importance in the past than at present. No doubt institutions and ideals have greatly developed, but no more, perhaps, than have economic activities. To me these seem to be co-ordinate phases of existence which have ever marched side by side. When I look back through the past I seem to see

human nature, language, institutions, modes of conflict, modes of getting a living, philosophies and aspirations, ever as one indivisible life, even as they are at present; although certainly the whole and every phase of it becomes cruder as we go back. We have learned from the works of Professor Giddings that we can no longer regard human nature as separable from language and other institutions; the individual no more created these things than they created him, all is one growth. Even poetry is, in a sense, as old as man himself; for language is truly said to be fossil poetry, and language and human nature, we now believe, arose together.

But have not the economic activities at least a primacy in logic, as being the necessary basis of every thing else?

I cannot see that the getting of food, or whatever else the economic activities may be defined to be, is any more the logical basis of existence than the ideal activities. It is true that there could be no ideas and institutions without a food-supply; but no more could we get food if we did not have ideas and institutions. All work together, and each of the principal functions is essential to every other.

I am not sure that the feeling of the primacy of material conditions has any better foundation than their tangible and visible character which makes them stand out more clearly before the mind and gives an illusion of their independence. As they exist in society, or for us, they are really as plastic and changeable as thought itself. Social and psychological science is, in my opinion far too complaisant to that prejudice of the physical scientist which identifies the ideal with the vague, and wishes to have as little to do with it as possible.

I do not object to the interpretation of history from the materialistic point of view, so long as it is recognized that this is partial, deserving no logical preference over the idealistic point of view, and always needing to be balanced by the latter. But, so far as I have noticed, writers who start from material data are inclined to hold not merely that this is *a* place to start but that it is *the* place; and, if so, I think they are justly chargeable with materialism.

I do not quite agree with the paper in the view that materialistic interpretations fail to satisfy us only because they have not explained the ideal. I should not be content with seeing how the ideal proceeds from the material, but I should wish also to begin at the other end and see how the material, as it exists in society, proceeds from the ideal. The industrial society of the nineteenth century for instance, is perhaps as much the result of the institutions and philosophies of the eighteenth as it is a cause of those which are to be in the twentieth. And, finally I should wish to unite these partial views so far as possible into a total or organic view, a perception of the living fact.

I will not dwell upon the merely idealistic view of history, since it has little vogue at the present time. It has as much one-sidedness as the other. Looking upon thought as the causal force in all life it treats things as no more than its symbols.

I would not, however, conceal my opinion that it is quite as plausible and legitimate, quite as scientific, if you please, to treat the human mind itself as the primary factor in life, and history as its gradual unfolding, as it is to begin with the material. Why should the stimulus or spur of progress be ascribed to things more than to the mind itself?

The organic view of history denies that any factor or factors are more ultimate than others. Indeed it denies that the so-called factors—such as the mind, the various institutions, the physical environment, and so on—have any real existence apart from a total life in which all share in the same way that the members of the body share in the life of the animal organism. It looks upon mind and matter, soil, climate, flora, fauna, thought, language and institutions as aspects of a single rounded whole, one total growth. We may concentrate attention upon some one of these things, but this concentration should never go so far as to overlook the subordination of each to the whole, or to conceive one as precedent to others.

One who holds this view is not content to inquire whether the economic interpretation of history is the fundamental one. Back of that, he thinks, is the question whether there is, in fact, such a thing as a fundamental interpretation of history, in the sense that one aspect of society is in its nature more ultimate than others; whether life actually proceeds in a one-two-three manner, and not, rather, in a total manner, each special phase of it at any given time being derived not merely from some other special phase but from the total condition of mankind in the preceding epoch. He believes that life, go back as far as you will, is a progressive transformation of a whole, in which the ideal, institutional and material phases are co-ordinate and inseparable.

History is not like a tangled skein which you may straighten out by getting hold of the right end and following it with sufficient persistence. It has no straightness, no merely lineal continuity, in its nature. It is a

living thing, to be known by sharing its life, very much as you know a person.

In the organic world—that is to say in real life—each function is a center from which causes radiate and to which they converge; all is alike cause and effect; there is no logical primacy, no independent variable, no place where the thread begins. As in the fable of the belly and the members, each is dependent upon all the others. You must see the whole or you do not truly see anything.

Supposing that this organic conception is a just one, what practical bearing, let us ask in conclusion, has it upon the method of expounding or of comprehending history?

It by no means discredits the study of history from particular points of view, such as the economic, the political, the military, the religious. The whole is so vast that to get any hold of it we need to approach it now from one point of view, now from another, fixing our attention upon each phase in turn, as all the world did, a few years ago, upon the influence of sea-power when Captain Mahan's work appeared. But no study of a special chain of causes can be more than an incident in that perception of a reciprocating whole which I take to be our true aim.

If we think in this way we shall approach the comprehension of a period of history very much as we approach a great work of organic art, like a gothic cathedral. We view the cathedral from many points and at our leisure, now the front and now the apse, now taking in the whole from a distance, now lingering near at hand over the details, living with it, if we can, for months; until gradually there arises a conception of it

which is confined to no one aspect but is, so far as the limits of our mind permit, the image of the whole in all its unity and richness. And it is such a view as this at which we aim in the study of history. Every competent student may help us, whether his work is narrative or philosophical, large or minute, written from one point of view or several; but after all what we would like to get is nothing less than a living familiarity with the past, so that in the measure of our faculty, we might actually possess it in something of the various unity of life itself.

LESTER F. WARD: The time allowed for discussion seems to require its restriction to some one salient point in Professor Giddings' comprehensive paper. The strongest point he makes, as it seems to me, is that in which he treats the three stages in the development of a people, and which he correctly designates as those of unity, liberty, and equality respectively. These three stages may, however, with equal propriety be designated as so many different steps in the attainment of human freedom. The stage of unity may be called that of national freedom, the stage of liberty that of political freedom, and the stage of equality that of social freedom.

The first and prime requisite during the early efforts at nation forming, following upon conquest and subjugation, is the consolidation of the amalgamating group into a national unit capable of withstanding the encroachments and attacks of other outside groups. Until this is attained none of the subsequent steps can be taken. But it involves the elaboration of the crude and antagonistic materials into the only kind of order or organization of which they are capable, viz., the politico-military organization. The sali-

ent features of such an organization, are extreme inequality, caste, slavery, and stern military domination. It is during this stage that the individual system is sketched on the broad lines of social cleavage, resulting in the three great fundamental social tissues, the ruling class or ectoderm, the proletarian or entoderm, and the business class or mesoderm of the primitive state. They form a strong bulwark and enable the inchoate state to defend itself against hostile elements from without during the subsequent stages in social assimilation. They secure the first great prerequisite—national freedom.

But individual liberty is at its minimum. The conquered race, which always far outnumbers all other elements, is chiefly in bondage, and the great struggle for political liberty begins. Ultimately, as the history of the world shows, this is in large measure attained. Throughout antiquity, the Middle Ages, and down to the middle of the nineteenth century, this was the great, all-absorbing issue—political freedom. One after another the bulwarks of oppression—slavery, serfdom, feudalism, despotism, monarchy in its true sense, nobility and priestly rule—fell, the middle or business class (*bourgeoisie*) gained the ascendant, which it still holds, and political liberty was attained.

So all-important did this issue seem that throughout the eighteenth century and down to near our own time it was confidently believed that, with the overthrow of political oppression and the attainment of political freedom, the world would enter upon the great millennium of universal prosperity, welfare, and happiness.

But, as Professor Giddings has shown, this was far from the case. As sages predicted, events have proved that there remains another step to be taken. Another

stage must be reached before any considerable degree of the hopes that were entertained can be realized. Professor Giddings calls this the stage of *equality*. I prefer to designate it as the stage of *social freedom*. The world is to-day in the throes of this great third struggle. Military oppression and royal oppression have been abolished. Slavery, serfdom, feudalism, have disappeared. Autocracy and aristocracy no longer rule. The power of royalty, of the priesthood, of the nobility, has been broken. The civilized world is democratic, no matter by what name its governments are called. The people rule themselves by their sovereign votes. And yet, never in the history of the world was there manifested greater unrest or greater dissatisfaction with the state of things that exists to-day. National freedom and political freedom have been achieved. Social freedom remains to be achieved. The race struggle and the political struggle are practically over and we are in the midst of the industrial struggle. The military power, the sacerdotal power, and the power of the nobility have given way to the economic power or the power of wealth. This last is now being challenged by the industrial power or the power of labor. The first and second estates have surrendered their scepter to the third estate, which is as nearly "everything" as the Abbé Seyès could have desired. The ominous rumbling that we now hear in the lower strata of the social world is due to the coming to consciousness of the fourth estate. The social strata that consisted first of slaves and serfs and then of peasants and laborers, now embrace the voters of democratic states. It would be well if historians would turn aside for a time from the study of military and political events

and begin the study of the most important of all human events, the rise of the proletariat.

I have in these few words sought merely to state the problem, not to solve it. History will solve it as it solves all problems, and while it would be presumptuous of any one to venture a prediction, the history of the past seems at least to establish one principle, which is that the entire movement I have sketched is one movement, and that its direction is ever the same and irreversible.

GEORGE L. BURR: I have listened with much interest to the speculations of Professor Giddings. But, if you ask me as a student of history for a verdict upon them, I can only make the plea which I think the lawyers call "confession and avoidance". They are very fine. They may well be very true. But the thing of which Professor Giddings is talking is not history.

The law of language is use. Words, like people, have their vested rights. And history is an ancient word. From Herodotus to Mommsen it has had a recognized meaning. I am not so rash as to hazard here a definition: it is not needed. The very grievance of Professor Giddings is that the word has never meant what he would now make it mean. Supported by his charges, I may at least dare to admit that the theme of history *has* been the lives and deeds of individuals—individual men, individual peoples, individual states, individual civilizations,—that its method has been, not biologic, but biographic,—and that its prime aim, however obscured now and then by the prepossessions, theologic or sociologic, of a historian, has always been, in the simple phrase of Ranke, to learn and to tell "*wie es eigentlich gewesen ist*"—how it actually was.

But, says Professor Giddings, this is not a science. I do not know. I do not greatly care. It is not the sciences alone which have a right to their names and to their fields. There are the literatures and the arts. Science is, after all, but an old Latin word for knowledge; and I gladly grant that knowledge is not the highest aim of history. It is no historical sentimentalist, no mere quibbling pedagogue, but the great constitutional historian of England, who holds the chief worth of history to lie, not in the knowledge it gives, not even in its training of the imagination, the sympathy, the insight, the judgment, but in the growth it brings to him who studies it for its own sake. It is travel, acquaintance, experience, life. History *is* society. Where else will the sociologist find that past with which he deals? Even of yesterday he knows only through the newspaper; and the newspaper is history.

Yet is it so sure that history is not a science? It is, indeed, not a natural science. In the days of Pythagoras nothing could be a science which could not be reduced to terms of mathematics. In the Middle Ages all science was forced to be metaphysical. Only the syllogism was proof. To-day it is the turn of the natural sciences.

"I am the Master of this College,
What I know not is not knowledge."

To Professor Giddings, history, without classification and induction, is but "a chaos of unassorted facts." It must be developed like descriptive botany and comparative anatomy, and so made "a true explanatory science."

Yet even President Seligman allows us the alternative of being "a method." Is it quite sure, while as yet we have no admitted classification of the sciences, that a

method is not the adequate criterion of a science? And is it wholly clear that we have no field of our own, we who neither deduce nor generalize? When, in the process of nature, there came into existence the phenomena of organic life, there was born a need for something other than the physical sciences. There was nothing, even now, which physics might not weigh and chemistry analyze; but to the sympathetic understanding of the subtle processes of life there was a nearer and less clumsy way, and the biological sciences were born—botany and zoology, morphology and physiology. So, too, at a later stage, there come into view yet other phenomena,—the phenomena of personal consciousness and choice; and, not because of any break in the order of nature, but merely because of the accident that we ourselves are men and women, endowed with consciousness and choice, there is open to us a door for the immediate understanding of these conscious, choiceful acts. They need for us neither demonstration nor explanation: we see and we understand. The method of history, says Droysen, is "*forschend zu verstehen*."

Why, even the philosophers, who were wont so loftily to lay down the law for the sciences, have at last be-thought them to notice what history is, as well as what it ought to be. The experimental psychologists themselves, who seemed about to surrender to natural science the very stronghold of metaphysics, have come to our help. A Dilthey has shown why history must forever deal with the individual and the concrete, and must rest on biography as the social sciences do on anthropology. A Simmel has made it clear that the knowledge we gain of other men and other ages by living ourselves into their lives is a real knowledge. A Wundt has shown the impossibility of historical laws,

and has pointed out that even when history uses the comparative method, it is not, as in the natural sciences, for induction and generalization, but only to find for a group of phenomena their explanation within themselves or in the familiar laws of human nature. A Rickert has found in history the science of reality, the necessary complement of the sciences of abstraction and generalization.

I would like to meet the argument that a method which individualizes must lose itself in a wilderness of details; but I must not overstep my time. Yet I can not close without protesting that the historian has no wish to do without the generalizing sciences. Politics, economics, ethics, are not history; but they are indispensable to history. The audacious generalizations of a Buckle were not useless because the new science which they helped give birth is now called, not history, but anthropo-geography. We are not the less grateful to a Taine because we must count much of his work folk-psychology. And even that ambitious comprehensive study, be it science or be it philosophy, which the Germans still call the philosophy of history, but which the followers of Auguste Comte in France and England and America prefer to know as sociology, may well have for us its own high use, if we can ever agree as to its province and its name.

But not less do these need history, and history as it is. History alone can teach them to find and to test their own materials. History alone can give them the atmosphere which permits their work.

WILLIS MASON WEST: On the train down from Chicago, and since our arrival in New Orleans, I have busied myself in collecting opinions of historians as

to what sociology is or ought to be. Of course, I have found no one who will accept as satisfactory the relationship between history and sociology set forth to-night by the sociologists. Indeed, I have found no one who believes that there can be a profitable sociology, as these gentlemen use the term;—no one who believes that there can be now a satisfactory philosophy of history and universal science of society. It is to be hoped that this will not disturb the sociologists any more than the sociologists' definitions of history disturb the historians.

If Professor Giddings' paper be representative of the sociologists' position, I do not despair of some slight progress even towards agreement, though it may be only agreement to let each other alone. The older sociologists have been somewhat too fond of implying that history for the most part is worthless, and that whatever of good there is in it may be found better in sociology. If we partially forgive these older writers, in consideration of the unscientific character of the older history, what shall we say of M. Taarde, who only the other day spoke flippantly of history as a "motley succession of fantastic paintings?" And what shall we say of those sociologists who have slipped into that tone in this discussion? Of course no headway is to be made in this way; historians are merely tempted to retort that sociologists can ill afford to fling these disagreeable missiles about so recklessly, until they move into less breakable and less transparent houses than those that have so far sheltered them.

Happily Professor Giddings is more just and more generous. He recognizes three stages in the study of past social events: a first stage where such events are arranged only according to chronology; a second stage where they are arranged according to likeness in func-

tion or structure; and a third stage, which he hopes *may be* attained, where they are "correlated with their underlying causes," so as to give a "rational, or explanatory arrangement." In the first stage, Professor Giddings calls this study history; in the second stage, he still calls it history; in the third stage he intends to call it—sociology! Now if this is merely a question of terminology, it does not matter; if, on the other hand, important practical consequences are to follow from the terminology, let us be clear as to what they are.

Professor Giddings recognizes that history has made "some progress" from the unsatisfactory chronological stage into the more scientific structural stage. It has advanced from the stage of the natural history of Buffon to the stage of the botany of Linnæus or the zoology of Cuvier. Very well! And when the Darwin comes, to organize history in a higher way, he may call it sociology if he wants to, but he must be a historian, as the Darwin of biology was a botanist and zoologist. The historians will acknowledge no terminology that conflicts with this fact; and for the present they deny the possibility of a Darwin for historical matter anyway. It is on these two points that Professor Giddings parts company with us.

Curiously enough, some have held the historians responsible for the division of the study of social life into wholly separate and reciprocally exclusive fields. This separation is just what the historians deny. It is our friends, the political scientists and the sociologists, who, coming late into the land, have built up their fences at will and warned the "mere historian" off their particular preserves; though, to be sure these gentlemen have a pleasant proneness to ignore their fences when they see anything they want on the historical side.

I trust I may be pardoned if I draw upon my personal experience for an illustration of this readiness to claim for other fields anything that the proprietors recognize as good in history. Some time since, I put forth a modest text-book in history. A friend of mine, who happens to be a professor of political science, speaks of the book to his classes, closing with the climax that Mr. West is not a "mere historian," but that he is really "something of a political scientist!" And then I have another friend who is a professor of political economy; this gentleman writes me delightful praise but adds that really I am, or ought to be, not a historian, but a political economist! I regret that I cannot complete the story by relating that I have been claimed in like manner as a sociologist. Had the book been good enough, no doubt I should have been so styled by some partial sociologist. But even then I should have been constrained to decline the compliment, along with these others, and to rest content with the title of a student and teacher of history,—“mere” history, too. At the same time, I have no objection in the world to these gentlemen coming into the historical field to gather wherewithal to build their theories; indeed, I only object that they don't come enough, and that they gather somewhat at random when they do come. No, it is not the historians who mark off exclusive fields.

Historians do object to any quaint assumption of a division of labor that tries to exclude them from reasoning about history. Possibly it would not be altogether unreasonable to object to an assumption that anyone else is better qualified than the historian to reason about history. The attitude of the men who theorize so freely on the results of the historians' work seems to us to be one or the other of these two positions.

Some of the theorists say to us, "Why, you go out, do the digging and grubbing; then bring us what you find, and we will tell you what it means; we will give it 'intelligible order.'" Is it possible these gentlemen wish to dance without paying the fiddler? Or is it simply that they fail to understand how much this dancing costs? In any case, there are two good reasons why such a differentiation of function will not come to pass. First, the historians will not take the part assigned; rest assured, if we find anything worth "arranging," we are going to arrange it ourselves, without consulting men who are not historians. And, secondly, we couldn't perform this act of self-effacement if we would; there are so few periods for which the history is yet definitely established (this is a historical secret, to be spoken in whispers) that only a student trained in historical method and practice can really tell what is good in historical writing and what is not—for the purpose of a final philosophy. And thus, when theorists who are not historians do dip into historical literature to get some basis for their ideal structures, the historians too often are moved to unholy mirth.

A more considerate school of theorists say only, as I understand Professor Giddings to do,—“But you historians *refuse* to generalize; and so we sociologists are forced to try to find some system for your facts.” Yes, historians do refuse to try any universal generalization. The sociologist may think it is because we are not so near the facts that we can't see relationships; we think, of course, that we appreciate better the tremendous complexity of the material, the absolute impossibility in the present condition of human knowledge of capturing the life of society with any one formula.

Some years ago at a meeting of this kind, if I remember rightly, a daring speaker told the sociologists that their "science" was only the "residuary legatee of a defunct and discredited philosophy of history." And in all seriousness I ask, what is sociology but an attempt to build a new philosophy of history,—a philosophy transformed by the new conceptions of physical science? Of course we agree with the sociologists that such a philosophy is highly desirable; the more optimistic of us hope that some time, in the dim future, it may be achieved. But we think that this philosophy, whenever it comes, will be built by historians; and we think its coming is so problematical, or at least so distant, that at present we need not concern ourselves with speculations about it. The sociologists courageously rush in, where historians—in closer touch with facts—decline to spin cobwebs. But we have no objection whatever to these other gentlemen theorizing all they please, however we may regret what seems to us misdirected effort; and even the most conservative among us will expect to draw useful hints or warnings from their guesses.

This then is the relation between history and sociology with which I am concerned. We must let each other alone, with as much of charity and good will as may be. The historian is willing that the sociologist should speculate upon history; but he does insist upon two things: the historian must be at liberty, *as a historian*, to reason upon history himself, so far as he sees it possible; and he must be allowed to carry his studies over from yesterday into to-day, when he thinks it expedient. He must be able to do these things without being called names,—either political scientist or sociologist. We will respect no fences that interfere with

our rights in these two matters. In return we will allow you gentlemen perfect liberty in our field,—and we will not call you historians, either.

FRANKLIN H. GIDDINGS: The only comment that I wish to make upon this discussion of my paper may be put in the form of a question. Do the historians wish to include the problems of social causation within the field of history, or to exclude them, as foreign to the historians proper task? I care nothing for mere labels. If history properly comprehends an examination of the problems that I have set before you to-night—and I gather from the remarks of Professor Burr and Professor West, that they think it does—I am quite as ready to hear these studies called history as to hear them called sociology. If, however, history has no business to meddle with such questions, and if the historian ought to hold—as I understand Professor Emerton to hold—that the study of social causation is an impossible undertaking, that can end only in vague and worthless generalization—the historian cannot reasonably object if those who, like myself, hold a different opinion, take to themselves another name, and attempt in their own way to build up a branch of science in which these problems are made the central themes of investigation.

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